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ABSTRACT

This book contains four monographs based on research conducted in a number of African countries between 1965 and 1967 in an attempt to illuminate some of the problems confronting educational planners in developing countries. The book is one of three related volumes of case studies on educational planning in the English-speaking countries of Uganda, Tanzania, and Nigeria. Each volume consists of several previously published monographs, which have been collected in book form to facilitate comparison of the approaches taken in different countries to common problems. This volume contains studies on the process of educational planning in Uganda, Tanzania, and Nigeria. Included are the following monographs: "Educational Planning and Development in Uganda," by J. D. Chesswas; "The Process of Educational Planning in Tanzania," by A. C. Mwingira and Simon Pratt; "The Planning of Primary Education in Northern Nigeria," by J. F. Thornley; and "The Organization of Educational Planning in Nigeria," by A. C. R. Wheeler. (Author/JG)

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# Educational development in Africa

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## I. The planning process

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# IIEP African studies

The research undertaken by the International Institute for Educational Planning (IIEP) in African countries between 1965 and 1967 was an attempt to shed light upon several important problems confronting educational planners in virtually all developing countries. These problems included the integration of educational and economic planning, the costing and financing of educational development, the supply of and demand for teachers, the effect of rapid expansion on the quality of education, the planning of adult education, the bearing of educational planning upon external aid, and the administrative aspects of planning, including implementation.

The project was undertaken in three stages. The first involved the collection and analysis of documentation on three English-speaking countries, Nigeria, Tanzania and Uganda, and two French-speaking countries, Ivory Coast and Senegal, where the studies were to be undertaken, followed by the drafting and critical review of provisional reports. The second stage consisted of field investigations by staff members and expert consultants, lasting one to three months in each case, and carried out with the co-operation of officials and advisers of the countries concerned. The last stage involved the drafting, criticism, revision and final editing of the report.

Two senior staff members of IIEP, Raymond Lyons and Raymond Poignant, directed the studies in the English-speaking and French-speaking countries respectively, from initial design to final editing. In all, sixteen individual case studies (eleven concerned with English-speaking countries and five with French) were prepared for publication and issued promptly in monograph form.

The great advantage of issuing the individual case studies separately was that of speed. By this method, the shortest possible time elapsed between completion of the case studies and getting the results into the hands of the users. Now that all the research work has been completed and the individual monographs published, however, the Institute has decided to bring together related studies and issue them in book form. Three volumes of case studies on English-speaking African countries are now being published, dealing in turn with the process of educational planning, the costing and financing of educational development, and the integration and administration of educational development.

The present volume contains studies on the process of educational planning from Nigeria, Tanzania and Uganda. The Institute hopes that the reader, by being able to compare approaches made in different countries to common problems, may be able to extract from their experience lessons which may prove useful not only to the countries studied but to *all* developing countries.

While gratitude is expressed to the governments, organizations and many individuals whose co-operation made these studies possible, and to the Ford Foundation and the French Government for their help in financing them, it is emphasized that responsibility for the facts, analyses and interpretations presented rests with the authors. In making the decision to publish these studies, neither Unesco nor IIEP necessarily endorses the views expressed in them, but they feel that their content is worthy of open and free discussion.

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# Educational planning and development in Uganda

**J.D. Chesswas**

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# Foreword

This monograph by John Chesswas, formerly officer in charge of educational planning in Uganda and now a staff member of the IIEP, portrays the practical problems of educational planning and development in a newly independent African country. It describes the techniques used in coping with these problems, not the least of which arise from the fact that nations at a relatively early stage of development lack much of the basic statistical information that 'textbook planners' are sometimes prone to take for granted.

The author stresses particularly the desirability of co-ordinating all stages of planning and development, a task which devolves on a unit—the planning unit—specially created for this purpose within the Ministry of Education. But he is careful to emphasize that the role of such a unit is essentially an advisory one; it does not make major policy decisions, though it may influence them; nor does it control the implementation of policy decisions, though it may, and should, keep a sharp eye on it. Drawing on his experience in Uganda, the author shows what the structure of an educational planning unit might be and how it might best be fitted into the institutional framework of national development.

Planning must start from clear assumptions about what is to be taught and how. The syllabus and the methods by which it is taught are being modified in Uganda in the light of changing requirements, and these modifications involve certain commitments in terms of educational resources and finance. Indeed, it should never be forgotten that the quantitative elements of educational planning are largely governed by the qualitative requirements of educational needs.

An important contribution of this study lies in its description of the techniques involved in the formulation and implementation of an educational plan, especially of the statistical techniques with regard to school building, teacher training, costing and testing for feasibility in general. The author lays particular stress on the need for adequate statistical information, an indispensable basis for any effective planning, and provides useful examples of how this need can be met in a country which has not yet had the possibility of developing a sophisticated statistical apparatus.

But most important perhaps is the conclusion, firmly grounded in the author's experience in Uganda, that the elaboration and implementation of an effective educational plan must be the result of co-operation and compromise, of a harmonization of views which are not always convergent as between ministries, institutions and individuals. It is the combination of technical competence, administrative ability and diplomatic *savoir-faire* which will determine in the end whether a plan, once formulated, will win the measure of ministerial support and public approval without which no effective implementation can be contemplated.

Raymond Lyons, a senior staff member of the Institute, collaborated closely with the author in the original design of this study and at each subsequent stage until its completion. Officials of the Uganda Government, especially in the Ministry of Education, also made very useful contributions, mainly in reviewing critically the successive drafts.

PHILIP H. COOMBS
Director, IIEP

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# Introduction

Uganda is situated in East Africa on the northern and north-western shores of Lake Victoria, at the source of the Nile. It occupies an area of 94,000 square miles, is roughly square in shape, and has a population of over 7 million, increasing at a rate of 2.5 to 2.7 per cent per annum. The economy of the country is based almost exclusively on agriculture, with crop cultivation predominating in the lake and hill areas of the south of the country, and pasturage predominating in the flatter and lower-lying areas of the north. Exports consist mainly of coffee and cotton, though tea is becoming of increasing importance, and copper, mined in the foothills of Ruwenzori, is also beginning to make a contribution to exports.

Uganda's contact with Western civilization started with the discovery of the source of the Nile, just over 100 years ago. The country became a British Protectorate in 1894, and achieved independence in October 1962, becoming shortly afterwards an independent State within the Commonwealth.

Western-type education was started by missionaries late in the nineteenth century, and the first missionary schools were founded at about the turn of the century. A department of education was established in 1925, and a ministry of education was superimposed on it in the late 1950s; both were amalgamated into the Ministry of Education in 1962, shortly before the grant of independence.

In 1964, total enrolments in all aided schools were 546,454, distributed as follows: primary, 482,470; junior secondary, 43,397; (senior) secondary, including secondary modern, 13,668; technical, 1,370; junior vocational, 1,473; teacher training, 4,076. Primary enrolments represented 47.5 per cent of the notional age group, but the figure is in fact misleading as most of the children were over-age for their classes.

No reliable data are available for non-aided schools, but such information as can be gleaned from different sources indicates that enrolments in non-aided primary schools represent roughly half of those in aided schools, the main concentration being in the first three classes. At the secondary level, the enrolments in non-aided schools might total between 10,000 and 15,000, including a certain proportion of pupils from neighbouring countries, especially Kenya and Tanzania.

University education is conducted on an inter-territorial basis by the University of East Africa, covering Kenya, Tanzania and Uganda, with colleges at Makerere, Kampala, in Uganda, at Nairobi in Kenya, and at Dar es Salaam in Tanzania. The university is autonomous, but each of the three countries has strong representation on the council of the university.

The total cost of running educational services below university level amounted to some £7.7 million in the financial year 1963-64. Of this total, the central government spent directly some £2.3 million on recurrent costs, and the spending of local authorities, for which no audited figures are available, is estimated at £4,360,000, of which about two-thirds came from central government grants. The income from fees is estimated at about £1 million.

# 1 The organizational framework

## The educational system

The structure of the educational system in Uganda is shown schematically in Figure 1 (p. 18). The main elements of this system are the following:

1. The basic course, i.e., a six-year primary course followed by a two-year junior secondary (JS) course. As a result of the recommendations of the 1963 Education Commission,[1] these two courses will be fused by 1967 into a single seven-year primary course, with no examination for selection at the end of the sixth year, as at present.
2. The secondary course, which is a six-year course divided into two parts, the first four years leading to the Cambridge Overseas School Certificate (CSC), followed, after selection, by a two-year course leading to the Higher School Certificate (HSC).
3. A university course of a minimum duration of three years, leading to an honours or pass degree, which is a London degree, the university having a close connexion with London University.
4. Technical education, which comprises several branches: four-year craft courses after JS.2 (year 8); three-year farm courses after JS.2 (year 8); two-year technicians' courses after S.4 (year 12); three-year diploma courses after S.6 (year 14); commercial courses of various lengths and kinds, leading to local or English qualifications.
5. Teacher-training which produces the following grades of teachers:
   (a) Grade II (year 8 plus four years at a teacher-training college) for teaching in P.1-6.
   (b) Grade III (year 12 with CSC plus two years at a teacher-training college)

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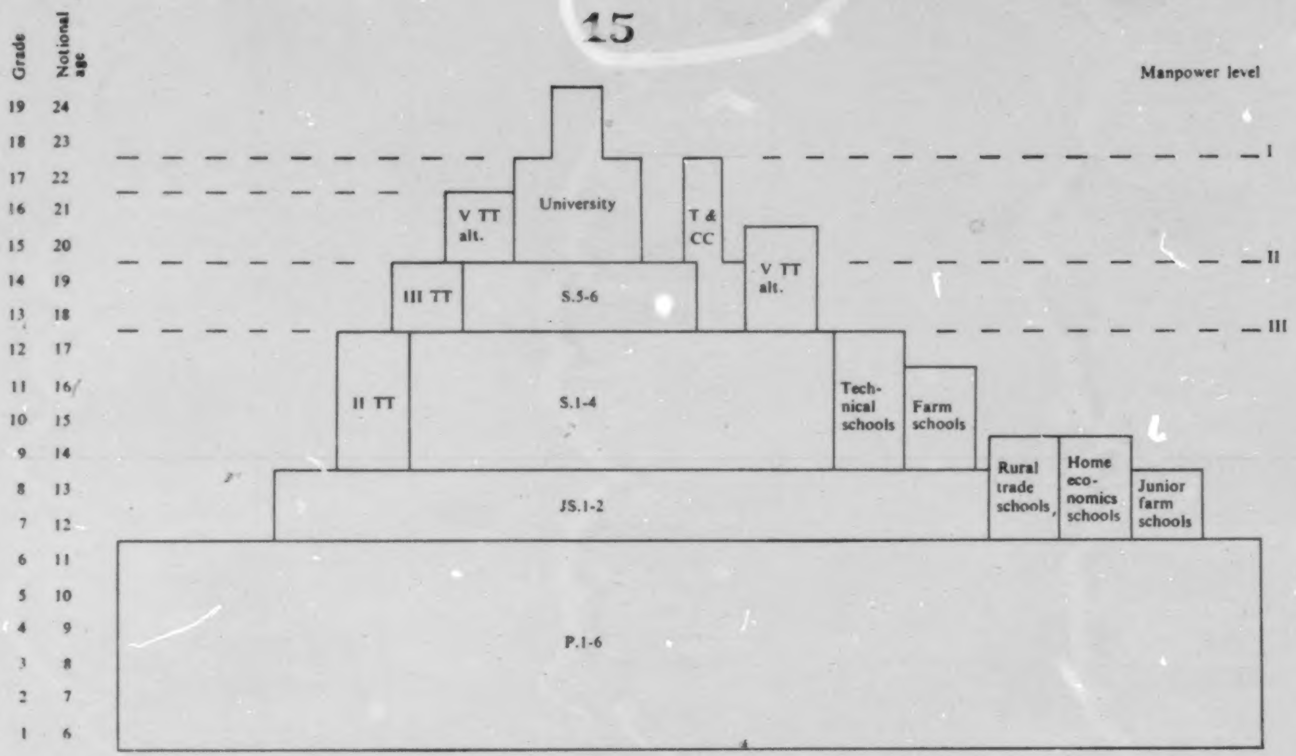
[1] Uganda Government, *Education in Uganda, Report of the Uganda Education Commission*, Entebbe, Government Printer, 1963, p. 7.


Grade
Notional age
19 24
18 23
17 22
16 21
15 20
14 19
13 18
12 17
11 16
10 15
9 14
8 13
7 12
6 11
5 10
4 9
3 8
2 7
1 6
Manpower level
I
II
III
V TT alt.
University
T & CC
V TT alt.
III TT
S.5-6
II TT
S.1-4
Technical schools
Farm schools
JS.1-2
Rural trade schools
Home economics schools
Junior farm schools
P.1-6

*Legend* P = Primary JS = Junior secondary S = (Senior) secondary TT = Teacher Training T & CC = Technical and commercial colleges

*Notes*

1. Rural trade, home economics and junior farm schools will disappear, and secondary courses are being broadened to cover practical subjects.
2. There is an upgrading route for teacher trainees, usually after some years of service. This is reflected in the pyramid by an overlap.
3. The technical and commercial colleges admit at the S. 6 grade both from their own courses and from general courses. This is reflected in the pyramid by an overlap.

FIGURE 1. Uganda. Structure of the educational system *(not to scale)*

for teaching in JS.1-2, a few teachers of this grade being also trained for urban primary schools.

(c) Grade V (good CSC at year 12 plus three years at a teacher-training college, or HSC at year 14 plus two years, the latter category of teachers starting at a higher salary than the former) for teaching at secondary schools, mainly years 9 and 10. The college for training grade V teachers is administered by Makerere University College; the alternative 12+3 will be abolished in favour of the alternative 14+2 when enough HSC candidates become available.

(d) Graduate teachers entering the profession directly after graduation or after a one-year post-graduate course (teaching diploma) at the Makerere Faculty of Education.

Grade I teachers (vernacular, year 6 plus two years of training) still exist in large numbers, but they are no longer trained. Grade IV is a grade to which grade III teachers can be upgraded after having followed recognized courses, such as those organized under the Commonwealth Education Scheme.

The educational system is administered by the Ministry of Education and by kingdom,[1] territory and local authorities. This is shown in a diagrammatic form in Appendix A, which also illustrates the position of the planning unit in the Ministry of Education and its links with the different sections of that ministry.

The constitution vests the administrative control of primary and junior secondary education in local authorities, except for demonstration (or practising) schools belonging to teacher-training colleges which are administered by the colleges. All schools and colleges at the second level are administered by boards of governors set up under rules promulgated by the Ministry of Education of the central government. These boards administer the finances of the school, except for the salaries of expatriate seconded civil service teachers which are paid by the ministry. It should be noted that the Kingdom of Buganda constitutes an exception in that it has administrative control over secondary and technical schools and grade II and III teacher-training colleges within its area. There are also management committees set up under similar rules for primary and junior secondary schools, but their control is much more limited than that of the boards of governors at the second level, especially in financial matters, which are in the hands of officers of kingdom, territorial and local authorities, whose education staffs are nearly always seconded central government officers.

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[1] The independent State of Uganda comprises four traditional kingdoms as well as other territorial units.

## The planning unit

The planning unit comprises a senior education officer who is the planning officer, a statistician, an education officer dealing with the capital budget, an executive officer dealing with statistical forms, school equipment, etc., and a secretary/stenographer. In addition, three undergraduates are employed for the checking of statistical forms, which fortunately occurs during the university long vacation. It is also planned to create an architectural and works section, initially with one architect and four supervisors.

The functions of the planning unit are: (a) to collect, process and interpret statistical data necessary for the purposes of educational planning; (b) to advise on all aspects of educational development policies and to draw up projections of enrolments in close collaboration with the working party set up for this purpose (see below); (c) to plan in detail the distribution of the additional enrolments between the different educational institutions and, in conjunction with boards of governors and local education committees, the additional physical facilities needed for the purpose; (d) to prepare estimates of capital spending necessary for these additional facilities; (e) to control the building, works, and initial furnishing and equipping programme.

The planning unit keeps in close touch with all the branches (administration, inspection, finance, establishment, etc.) of the Ministry of Education, with the Ministries of Planning and Finance and the government-founded corporation dealing with public works, with local authorities and with the schools. In particular, there is a constant personal contact with the Inspectorate, which deals with curricula and is fortunately housed in the same building as the planning unit.

Once the physical development facilities—buildings, works, furniture and equipment—have been achieved, the planning unit withdraws in favour of the officer or authority which administers the educational service, and starts work on the next planned development.

## Other planning bodies

Apart from the Education Commission, to whose recommendations reference was made earlier (see 'The educational system' above), the other important body dealing with educational development is the working party mentioned above in connexion with the work of the planning unit. This is one of the ten working parties set up by the Director of Planning in the Ministry of Planning to deal with the various aspects of the nation's development programme, and is charged specifically with education as related to manpower needs. Its chairman is the Chief Education Officer (see Appendix A), its secretary an economist from the

Central Planning Bureau, and its members include representatives from the Planning Bureau, the planning unit of the Ministry of Education, Makerere University College, the officially recognized Teachers' Association, the Overseas Scholarship Committee, the Employment Service, the Government Architectural Service, and a leading woman educationist appointed *ad personam*. The working party can co-opt other personalities, and has in fact permanently co-opted the Chief Inspector of Schools. Its task consists essentially in working out the projections and costings of total enrolments. It reports in the first place to the Minister of Education. Its work is described in more detail in Chapter 4.

There are also *ad hoc* committees of representatives of the schools and colleges and of the Inspectorate divisions formed from time to time at the request of the planning unit to exchange views and make recommendations on various aspects of educational development. One such committee spent several months on the very important subject on scales of accommodation in secondary schools. The outcome was the table shown in Appendix B and a complete set of standard school plans and specifications in accordance with the table. This work was controlled by the planning unit.

As far as links with research are concerned, it may be mentioned that research workers, mainly economists, working under the auspices of the East African Institute of Social Research based on Makerere University College, have made some valuable contributions to the subject of educational planning, and a close link is maintained at a personal level between the planning unit and research workers.

# 2 The needs of Uganda's educational development

It is clear that educational development should be closely related to the needs of the country. However, human factors inevitably enter the issue, and it is quite possible that economic necessities and human considerations may be in conflict, posing problems for the planner.

## The economic necessities

In spite of some measure of industrial development in the past few years, Uganda still is, and is likely to remain for the foreseeable future, a predominantly agricultural country. Educational development must therefore be directed largely to the needs of an agricultural community.

Another important consideration in the development of education is the necessity to give an African 'flavour' to educational courses. After the attainment of independence in 1962, it was felt that this aspect needed more emphasis, and it was borne in mind when experts were called together in various panels to review the primary-school syllabus. The new syllabus was issued early in 1965; teachers are to be given intensive refresher courses on this syllabus in the newly formed in-service training colleges.

It is, at present, more difficult to introduce similar changes at the secondary level, since the course is tied to the Cambridge University Overseas School Certificates which serve several countries. The Cambridge Syndicate is always open to suggestions for change, but there are obvious difficulties when the proposals for change are orientated to the specific needs of one country. Consideration should be given to some form of examination, possibly on an East Africa level, which would make the course more suitable to the needs of developing African countries.

The assessment of economic needs obviously calls for a manpower survey. Prior to the completion of the manpower survey in March 1965, there was no economic foundation on which educational planning could be based, and the only guide that could be followed was the maintenance of the existing balance between the various levels and branches of the educational system. Before independence was achieved, there was no great pressure to assess the needs for high-level manpower because a large proportion of such manpower was provided by expatriates.

With the achievement of independence, it automatically followed that plans should be made for Uganda to train its citizens to run their own affairs in all walks of life. It was essential to find out how much manpower of various qualifications the country would need, and how much the planned economy could afford. Under-production of qualified manpower would result in an undermanned economy or continued dependence on expatriates; over-production would mean unemployment or at best under-employment of highly trained personnel. A manpower survey was clearly essential.

All these objectives dictated by economic necessities are self-evident, but their achievement, and sometimes even their acceptance, come up against the natural human desire for educational advancement *per se*.

## The human aspiration factor

In Uganda, as in most other countries of the world, there is a natural aspiration for advancement of the individual, and such advancement is often seen to be attainable via an 'academic' type of education. It is the subjects which lead to an examination and the award of a certificate, diploma or degree which count in the minds of parents and children and, unfortunately, of some teachers. This attitude is very difficult to combat and constantly exercises the minds of those responsible for planning the content of courses.

That education is a human right in itself is one of Unesco's fundamental principles, and the Organization of African Unity has stressed that its objective is the achievement of universal primary education and a substantial development of secondary and higher education. Uganda fully subscribes to this principle and is eager to put it into practice, but its possibilities of action are limited by what the economy will need and, above all, by what it can afford.

In this connexion, it should be noted that the needs for qualified manpower, though based on an optimistic forecast of economic growth, call for a secondary education system that would accommodate only about 6 per cent of the relevant age group. In other words, if and when Uganda achieves universal full primary education, only 6 to 7 per cent of the 12- to 13-year-old children leaving primary schools would find places in secondary education. Even if the primary school capacity were maintained only at the 50 per cent of the notional age-group population which will result from the change to seven-year primary education in 1967, the proportion of primary-school leavers capable of being accommodated by a secondary-school system based on economic and manpower needs as forecast would not exceed 12 to 14 per cent.

In view of the keenness and competition for education in Uganda, a situation of that nature is fraught with obvious difficulties, if not dangers, and the inevitable result is a strong demand for a school system capable of accommodating more pupils than the estimated needs of the economy would justify. It can be argued in favour of this view that manpower forecasts in Uganda, being based on assumptions and models derived from the experience of more developed countries, contain a certain margin of error and that they are only a starting point. There is often, however, an apparent or real contradiction between manpower requirements and the personal demand for education, a contradiction which has to be faced and solved in the best possible way.

# 3 The statistical basis for educational planning

When planning the development of an educational system, the two fundamental problems which have to be considered are (a) how big the development should be, and (b) the size of the base from which it starts.

The size of the task is indicated by the future school-age population, and the first need, therefore, is to obtain as accurate a forecast as possible of this population over the years by the use of population statistics.

## Population statistics

In the case of Uganda, three possible methods could be used for this purpose.

1. In the latest census (1959) the breakdown of the population was carried out only by five-year groups (0-4, 5-9, 10-14, etc.), none of which coincided with school-age groups. In the central Kingdom of Buganda, however, a sample had been taken with a breakdown to each year. It might, therefore, have been possible to apply the Buganda age pattern to the whole country, assess the population of any age or age group in 1959, and accumulate annually at a rate of 2.5 per cent, which was the cumulative annual rate of population increase for the whole country. In fact, it might even have been possible to apply the same procedure to individual kingdoms and districts, since the cumulative population trend for each of them was known from the census.
2. Starting with the population as given by the 1959 census, forecasts could be made for any age group on the basis of the international model.[1]
3. The five-year groups given by the census for the whole of Uganda could be

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[1] This is the theoretical age-group distribution applicable to a stable population, similar to the model D/75 of the United Nations Organization.

smoothed, as shown in Appendix C, and then used as a basis for forecasts. Taking into account the improvement in the health services and in parental care, it was estimated that infant mortality would decrease to a point where the annual cumulative increase in the school-age population would rise to about 2.75 per cent.

However, those in charge of the collection of material for the 1959 census thought that the margin of error in the Buganda individual age sample could be as wide as 15 per cent, which made it useless for statistical purposes. The international model was a distinct possibility, but in the end it was felt that the third method was probably closer to reality, and it was therefore decided to use it.

The next task is the collection and processing of school statistics, which indicate how large—or small—is the base from which the development is to start.

## School statistics

Until 1962, school statistics were designed to supply the limited information required by the Colonial Office in London. After the grant of independence, the need for more thorough educational planning called for more detailed school statistics, and statistical forms to be filled in by schools have been improved year by year since 1963. Some of the latest versions, to be used in 1966, are shown in Appendix D.1-4, and detailed instructions have been given to schools on the methods of completing them. Primary-school headmasters and mistresses, some of whom are only grade I teachers, often have difficulty in filling in the forms and need assistance from the local education office staff.

The school statistics are usually collected in the second week of March, because the schools have by then been open for some six or seven weeks and have had a chance to settle down, and the earlier the statistics are collected the sooner the true situation is known and can, therefore, be used as the new base for planning.

Forms for primary and junior secondary schools are collected and checked in local education offices and forwarded in bulk to the central planning unit, and those for second-level schools are submitted direct to the central planning unit, except in Buganda, where the authorities collect and forward them. The planning unit checks each form, queries them if necessary, and prepares the coding. The information is then transferred to punch cards and processed, producing the final summarized statistics.[1]

Forms for second-level schools and colleges are received reasonably quickly, and as there are relatively few of them the main summaries can be made without the assistance of machines and are usually available for planning within four or five months of their collection. But in the case of primary schools, checking in local education offices, central checking and preparation for the machine usually take at least six months; moreover, the machine is intended primarily for other regular duties in some other ministry, and school statistics must be fitted in when the machine is available, which means that the whole procedure, from filling in of forms to final publication, takes between one and two years. This gap has been cut to fourteen months in the case of the 1964 statistics, and it is hoped to shorten it even further in the future. Specimens from the published 1964 statistics are shown in Appendix E. For 1966, it is proposed to publish examination statistics together with the main school statistics, and also certain analyses resulting from the statistics. The proposed list of tables for the 1966 statistics to be published is shown in Appendix F.

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[1] Consideration has recently been given to the possibility of using a computer, not only for processing, but also for interpretation work. An example will be found in Chapter 6.

As can be seen from forms 1 to 3 in Appendix D, information is required for the number of repeaters which will also enable the assessment of drop-out. These are very important factors in planning. For instance, in 1964, an average of one child in ten in primary schools in Uganda repeated a class, and in P.1 this figure was as high as one in seven. This means that, for a planned class of forty in P.1, there are on an average only thirty-four new entrants, the remaining six being repeaters. Thus in terms of intakes, the entrance rate to P.1 is only thirty-four per class, which means that, unless the problem of repeating is tackled successfully, more classes will have to be opened to accommodate a given intake of pupils. Again, drop-out may result in decreasing the pupil-teacher ratios as grades progress and in only a partial utilization of available facilities.

Statistical information on repeating and drop-out is, therefore, necessary for the purposes both of planning and of assessing the gravity of the problem with a view to tackling it successfully. Meanwhile, however, it is possible to plan enrolments by analysing the relationship between enrolments at the beginning of a course and the final results of the course over the past few years. Thus, the working party wanted to assess the enrolments needed to produce a total of 44,175 level III manpower (i.e., with a pass in the Cambridge Overseas School Certificate or equivalent, see 'The manpower survey' below) during the period 1966-76. The results of examinations over the past few years showed that, on an average, the number of passes at the end of year *x* was 63 per cent of the enrolments in S.1 in year *x*-3, i.e., the year in which the group started the secondary course. It is easy to see that, to produce 44,175 level III passes during the period 1966-76, it would be necessary to bring up the enrolments in S.1 to 100/63 × 44,175, i.e., 70,119 during the period 1963-73. The enrolments in 1963, 1964 and 1965 being already known, the remainder were easy to project with an even increase each year. In fact, this simplified method takes into account repeating and drop-out in a global way, without going into the details for each grade.

## Interpretation and use of statistics

The above example is a simple illustration of the way statistical information can be interpreted and put to use. It is sometimes necessary to have up-to-date information well before the processing of statistical forms has been completed, and in cases where a certain degree of approximation can be accepted, sampling can prove useful. In principle, sampling procedures should be left to statisticians, but these are not always available in a developing country, and the following is an example of how sampling was used in Uganda to obtain certain information on age distribution in primary schools as a base for considering a universal primary system.

The statistical forms available for 1964 were similar to form 1 shown in Appendix D (but without the age breakdown of repeaters, which was added for 1966 so as to investigate the repeater/drop-out problem in more depth). To obtain an approximate age breakdown the forms for each district of Uganda were arranged in an alphabetical order, and the numbers of each year group, by grade and by sex, were taken from every fifth form and added together. For instance, the P.1 boys might have shown the following age distribution in a district sample:

| Age | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 and over | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number | 76 | 280 | 196 | 122 | 60 | 38 | 13 | 9 | 5 | 3 | 802 |
| Percentage | 9.5 | 34.9 | 24.5 | 15.2 | 7.5 | 4.8 | 1.6 | 1.1 | 0.6 | 0.3 | 100 |

The percentages found above were then applied to the total number of P.1 boys for the district and if that total were, say, 3,964, the sample would indicate the following breakdown:

| Age | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 and over | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Enrolment | 377 | 1 384 | 971 | 602 | 297 | 190 | 63 | 44 | 24 | 12 | 3 964 |

This procedure, when applied to all the age groups, gives a complete picture of the age structure in primary schools, as shown in Table 1. It is worth noting how closely the sample totals approximate to the totals in the published statistics.

Another way of presenting the results is shown in the diagram of Appendix G. This, as well as the table, makes quite clear the difficulties encountered in tackling the problem of universal primary education, especially the extent to which a high proportion of over-age children in primary classes complicates the planning of such a scheme. Thus the capacity of primary classes in aided schools represents some 43 per cent of the notional primary age group, but only about two-thirds of these 43 per cent are in the notional age group, the remaining third being made up by children who are over or under the limits of the notional primary age range;

TABLE 1. Age structure in Uganda primary schools, 1964 (based on a 20 per cent sample of ages by class)

| Age | Enrolments in |  |  |  |  |  | Totals |  |
|---|---|---|---|---|---|---|---|---|
|  | P.1 | P.2 | P.3 | P.4 | P.5 | P.6 | Sample | Published |
| 5 | 10 998 | 329 | 16 | — | — | — | 11 343 | 11 390 |
| 6 | 36 416 | 6 129 | 368 | — | — | — | 42 913 | 43 540 |
| 7 | 26 768 | 20 061 | 3 362 | 332 | — | — | 50 523 | 50 252 |
| 8 | 15 440 | 22 867 | 12 304 | 2 173 | 260 | — | 53 044 | 52 202 |
| 9 | 7 842 | 15 919 | 16 239 | 8 654 | 1 974 | 240 | 50 868 | 49 949 |
| 10 | 5 005 | 13 848 | 17 441 | 16 008 | 7 615 | 2 254 | 62 171 | 59 628 |
| 11 | 1 626 | 6 420 | 11 175 | 13 754 | 10 888 | 5 689 | 49 552 | 49 686 |
| 12 | 1 243 | 5 008 | 10 847 | 15 010 | 15 277 | 12 667 | 60 052 | 62 609 |
| 13 | 606 | 2 542 | 6 389 | 10 938 | 14 627 | 16 531 | 51 633 | 52 763 |
| 14 and over | 319 | 1 017 | 3 665 | 7 036 | 14 283 | 24 051 | 50 371 | 50 451 |
|  |  |  |  |  |  |  | 482 470 | 482 470 |

and of the children who are within the limits of that range, most are over-age for their classes, and will therefore eventually still be occupying primary places when they have gone beyond the primary age range.

## The manpower survey

The manpower survey and forecasts were made by the Central Planning Bureau. The survey of the various sectors of employment was carried out in 1962 with a varying degree of accuracy. While figures for some sectors, such as the government sector, could be ascertained with great accuracy, those for some other sectors (self-employed, for instance) were much more subject to error. It was estimated, however, that the over-all margin of error did not exceed 20 per cent.

To those figures were added the known production figures for manpower during the period 1962-64 and the estimated figure for 1965 and, after allowing for wastage, the total gave the situation in 1966 as the base for future development.

The survey divides higher-level manpower into three levels: level I represents graduates and equivalent manpower, level II the Cambridge Overseas Higher School Certificate or equivalent, and level III the Cambridge Overseas School Certificate or equivalent. Grade III and V teachers were classified as level II, grade II teachers as level III. To achieve a given level, a candidate must be successful in the corresponding examination, otherwise he remains at the level immediately below. The working party accepted as equivalent to level II the entry level to Makerere University College which is lower than the normal 'pass' in the HSC. These levels are shown in Figure 1 (p. 18).

The basic assumption on which manpower forecasts were made was the doubling of gross domestic product (GDP) *per capita* during the period 1966-81. For each of the years 1971, 1976 and 1981 the GDP was calculated on the assumption, derived from international models, that higher-level manpower needs would progress at the same rate as GDP. This gave the basis for calculating total higher level manpower requirements for each of the periods ending in 1971, 1976 and 1981 respectively.

It was then assumed, again on the basis of international models, that the quantitative relationship between levels I, II and III should be 1 : 4 : 4, excluding grade II teachers from level III. Level II was then taken as the pivot around which the other levels revolve and in terms of which they could be expressed by means of the marginal substitution ratio of 1 : 4 : 4 as set out above. Since the position in 1962-63 was estimated at 3,000 level I and 7,300 level II personnel, this meant that the level II equivalent was 4 × 3,000 + 7,300 = 19,300.

With the rate of growth envisaged, the need for 1981 would be a total of 72,000 level II equivalent, which would correspond to 9,000 level I and 36,000 level II personnel (4 × 9,000 + 36,000 = 72,000).

This then was the objective but, in progressing towards it, other factors had to be taken into consideration; the current ratio of level I to level II was 1 : 2.4 instead of 1 : 4; then, many of the top level posts were held by expatriates and had to be progressively Africanized; further, account must be taken of wastage; and lastly, of course, there is the need to categorize the various levels, especially levels I and II. The details of the calculation are outside the scope of this study, but the results for level II manpower are shown in Table 2. This table calls for the following explanations.

The educational system in Uganda being on the English pattern, a distinction had to be made between arts and sciences. For each period, the growth plus wastage plus Africanization gives the total to be produced for employment at level II. To this must be added the number of those who will continue their studies at the university and other higher institutions (for level I manpower) in order to get the total number of HSC qualifiers needed for that period. The numbers in post at the beginning of each period plus growth gives the numbers in post at the beginning of the next period.

As far as forecasts for level I qualifiers were concerned, it was realized that it would be impossible to expand the local university rapidly enough to meet the needs during the earlier periods of the plan. Separate forecasts had, therefore, to be made for level I qualifiers produced locally and abroad, and the objective was to develop higher education to the stage where it could supply all needs by 1981.

The criterion of gross domestic product placed an upper limit on the manpower which could be forecast and, when the forecasts were categorized, there was likewise a limit on the number of teachers at each level. Teacher needs had, therefore,

TABLE 2. Uganda's requirements of level II qualifiers, 1966 to 1981

| Qualification | Beginning 1966 | 1966-71 (six years) | | | | Beginning 1972 | 1972-76 (five years) | | | | Beginning 1977 | 1976-81 (five years) | | | | Beginning 1982 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | In post | Revised growth | Normal wastage[1] | Africanization | Total to be produced | In post | Revised growth | Normal wastage[1] | Africanization | Total to be produced | In post | Revised growth | Normal wastage[1] | Africanization | Total to be produced | In post |
| HSC plus arts | 2 144 | 847 | 205 | 204 | 1 256 | 2 991 | 1 418 | 286 | 741 | 2 445 | 4 409 | 2 012 | 402 | 30 | 2 444 | 6 421 |
| University entrance arts[2] | | | | | 1 635 | | | | | 1 400 | | | | | 2 136 | |
| Total HSC arts | | | | | 2 891 | | | | | 3 845 | | | | | 4 580 | |
| HSC plus science | 2 035 | 805 | 285 | 102 | 1 192 | 2 840 | 1 347 | 332 | 257 | 1 936 | 4 187 | 1 912 | 429 | 126 | 2 467 | 6 099 |
| University entrance science[2] | | | | | 1 878 | | | | | 1 750 | | | | | 2 590 | |
| Total HSC science | | | | | 3 070 | | | | | 3 686 | | | | | 5 057 | |
| Total HSC | | | | | 5 961 | | | | | 7 531 | | | | | 9 637 | |
| CSC plus teacher | 2 030 | 3 268 | 411 | 70 | 3 749 | 5 298 | 3 328 | 515 | 80 | 3 923 | 8 626 | 5 230 | 800 | 183 | 6 213 | 13 856 |
| CSC plus nursing | 1 427 | 951 | 249 | 34 | 1 234 | 2 378 | 1 494 | 296 | 68 | 1 858 | 3 872 | 2 345 | 409 | 62 | 2 816 | 6 217 |
| CSC plus secretarial | 334 | 222 | 17 | 48 | 287 | 556 | 349 | 36 | 180 | 565 | 905 | 548 | 70 | — | 618 | 1 453 |
| CSC plus agricultural | 215 | 111 | 27 | 16 | 154 | 326 | 158 | 36 | 30 | 224 | 484 | 227 | 42 | 28 | 297 | 711 |
| CSC plus (draughtsmen, etc.) | 415 | 164 | 50 | 30 | 244 | 579 | 274 | 63 | 72 | 409 | 853 | 390 | 80 | 39 | 509 | 1 243 |
| Total CSC plus training | | | | | 5 668 | | | | | 6 979 | | | | | 10 453 | |
| GRAND TOTAL | 8 600 | 6 368 | 1 244 | 504 | 11 629 | 14 968 | 8 368 | 1 564 | 1 428 | 14 510 | 23 336 | 12 664 | 2 232 | 468 | 20 090 | 36 000 |

1. The normal wastage will be considerably larger if the wastage rate of the age group 20-30 is 1.75 per cent per annum instead of the 1 per cent we have assumed. This 1.75 per cent wastage rate has not yet been confirmed.
2. The output of S.6 of any year goes to university the next school-year, i.e., for the 1970 university output the intake will be from 1966 HSC qualifiers.

to be calculated by a series of successive substractions, starting from the highest grade and proceeding to the bottom of the scale. Thus the number of graduate teachers (level I) allowed in the forecast was subtracted from the total of teachers required in secondary level schools, leaving the number of grade V teachers needed to make up the difference. This in turn was subtracted from the number of level II teachers (grades V and III), shown in Table 2, leaving the number of grade III teachers which, in its turn, was subtracted from the total number of teachers needed in primary schools, thus leaving as residue the number of grade II teachers which had to be trained.

To illustrate this procedure, let us suppose that the needs for secondary-level schools are 1,000 teachers; but the manpower forecast, limited by the size of the gross domestic product, allows for only 400 graduate (level I) teachers, which leaves 600 to be provided by grade V (level II) teachers. Now suppose the manpower forecast allows for 2,000 level II (grades V and III) teachers for development; of these, 600 grade V teachers have been taken for secondary education, leaving 1,400 for primary education. If the total required for primary development is, say, 3,000, then 1,600 grade II teachers will have to be produced for development purposes. It was thus that the working party arrived at the conclusion that the very desirable objective of training nothing below grade III teachers for primary schools was out of the question for purely economic reasons.

# 4 Planning the educational structure

## Enrolment projections

The manpower survey gave the number of qualifiers which had to be produced at each level. It is now necessary to translate this figure into enrolments, taking account of repeating, drop-out and failure.

To do this, one has to work downwards from the university level, because the total output at any level except the highest contains a large element of those who intend to proceed to the next stage of education.[1] Thus it is necessary to assess, first, the needed output of graduates in any one year ($x$), and then work back to the enrolment in the first year of the university course ($x - 2$) to ensure this output; the first year of the university course, in its turn, gives the output needed at the end of year $x - 3$ at level II, also taking into account those who will go into employment at level II at the end of year $x - 3$ and those who will fail; by a similar process, the total output of level II qualifiers gives the required output of level III qualifiers at the end of year $x - 5$.

In concrete terms, the survey showed that the number of graduates needed for employment in 1971 will be 681, and that this number will, therefore, have to be produced by the end of 1970. Working on the assumption that the number graduating at the end of the course will represent 90 per cent of the intake to the university, the working party reached the conclusion that the intake to the university in 1968 must be $100/90 \times 681 = 757$. Again, it was assumed, on the basis of previous experience, that 95 per cent of the enrolments in S.5 in any one year survived to be examined at the end of the next year, and that 75 per cent of those that survived fulfilled the entrance requirements of Makerere University College. To get, therefore, the intake of 757 in 1968, it was necessary to have a minimum enrolment in S.5 in 1966 of 100/95 × 100/75 × 757 = 1,062; and this figure does not allow for any output of level II manpower (HSC) for employment. As the enrolment in S.5 in 1965 was 660, with a theoretical capacity of 720, there is clearly an urgent need for the expansion of S.5-6.

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[1] University planning is under the control of the university authorities, but the presence of a university representative on the working party ensured that the necessary link was maintained.

The year 1971 was chosen here because the 681 graduates needed for that year represent a peak figure, due mainly to the fact that the needs for Africanization will reach a peak by then. But this makes it all the more necessary to ensure that the satisfaction of these peak needs does not leave a too large S.5-6 system. Table 2 shows the need for a total output of level II (HSC) qualifiers of 5,961 during the period 1966-71; of these, 655 would be produced at the technical and commercial colleges, leaving 5,306 to be produced from ordinary S.6 classes. Applying the same proportions as above (95 and 75 per cent), this means that total enrolments in S.5 from 1965 to 1970 inclusive must be 100/95 × 100/75 × 5,306 = 7,447. Taking into account the enrolment of 660 in 1965, the need for a minimum enrolment of 1,062 in 1966, and the above total of 7,447, the working party recommended the following enrolments in S.5 in round figures: 1965, 660; 1966, 1,080; 1967, 1,220; 1968, 1,360; 1969, 1,500; 1970, 1,640; a total of 7,460. These enrolments also ensured an even rate of development.

Once the enrolments in the first year of a course are determined, the forecasting of enrolments in the following years is a simple matter. Table 3 shows this for the lower secondary course for the period 1965-71.

Recent figures showed an average drop of about 10 per cent between S.1 in any one year and S.4 three years later (the same cohort). Though details of repeating and drop-out were still being collected, it was assumed that the drop was to 97 per

TABLE 3. Enrolment forecasts for secondary classes 1 to 4, 1965-71

| Class | Percentage of S.1 enrolment | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 |
|---|---|---|---|---|---|---|---|---|
| S.1 | 100 | 5 900 | 6 615 | 6 755 | 6 895 | 7 035 | 7 175 | 7 350 |
| S.2 | 97 | 3 977 | 5 723 | 6 417 | 6 552 | 6 688 | 6 824 | 6 960 |
| S.3 | 93 | 2 925 | 3 813 | 5 487 | 6 152 | 6 282 | 6 412 | 6 543 |
| S.4 | 90 | 2 419 | 2 833 | 3 690 | 5 310 | 5 954 | 6 080 | 6 206 |
| TOTALS | | 15 221 | 18 984 | 22 349 | 24 909 | 25 959 | 26 491 | 27 059 |
| S.1 enrolment as percentage of P.7/JS.2 output of previous year | | 30.4 | 27.9 | 11.7 | 8.4 | 8.3 | 8.2 | 8.1 |
| Total enrolment as percentage of notional age population | | 3.3 | 4.1 | 4.6 | 5.0 | 5.1 | 5.1 | 5.1 |

cent in S.2, to 93 per cent in S.3 and to 90 per cent in S.4. It was thus a simple matter of applying these percentages, starting with the S.1 enrolment, and this is indicated by the diagonal lines in Table 3.

There are two important trends which should be carefully watched and which are shown in Table 3. One is the percentage of children leaving one level and proceeding to the next, i.e., the enrolment in S.1 as a percentage of the previous school-year's output of P.7/JS.2. In this particular case, the whole pattern changes during the 1966-67 period owing to the change from a selected junior secondary system to an automatically promoted P.7 system, and the significant figures are, therefore, those for 1968-71.

The other trend is the total enrolment as percentage of the age group. This is still rising as the result of emphasis on the development of secondary education in the period 1961-65, but when that development will have caught up with the annual manpower needs, there will be a levelling off.

## Length of courses and size of classes

As has already been noted at the beginning of this study (see 'The educational system' in Chapter 1), the courses leading to the Cambridge Overseas School Certificate will be shortened from twelve to eleven years. With a two-year upper-secondary course and a three-year university course, this makes a total of sixteen years to graduation. It has been queried whether Uganda can afford, in terms of both costs and delays in producing high-level manpower, to continue with a course of this length, especially in view of the many examples of shorter courses leading to graduation elsewhere. The Ministry of Education is very much aware of these considerations, but at the time of writing no decision has been made on reducing the total length of the course other than the change to a P.7 system.

Another consideration to which a good deal of attention is being paid is the size of classes. On the achievement of independence, the maximum size of a S.1-4 class was thirty-two, but many were less than thirty; and at the S.5 grade few had as many as twenty pupils. Recent decisions have changed the projected size to thirty-five in S.1-4 and thirty in S.5-6, the former starting with the intake to S.1 in 1965, the latter with the intake to S.5 in 1966. It has been argued that this will lower standards, but even if this were true—and the results still remain to be seen—it may also be argued that, with her urgent need for high-level manpower, Uganda ought to take this risk in the interest of running her own affairs.

## The content of the courses

Closely related to the length of courses and the size of classes is obviously the content of the courses, since a given content cannot be fulfilled in too short a time and/or with too large a class. A most interesting discussion on this subject was held by the working party when it came to the problem of producing craftsmen from technical schools. Some members felt that a four-year technical course was too long, and that more could be achieved more cheaply by making the first two years a general secondary course, with specialization starting with the third year. But others argued that there was a lack of industrial facilities in Uganda for an effective on-the-job training supplemented by more formal schooling, and hence a need for the schools to supply the workshop and machine tool skills. At the time of writing, no conclusion has been reached, but the point is interesting in that it shows how important it is to consider the content in relation to the length of a course. Other aspects of this problem will be discussed in Chapter 5.

## Streams and school sizes

The enrolment in the first year of a course divided by the size of the class gives the total number of streams for that particular course. It will be noticed that the S.1 enrolments in Table 3 were deliberately expressed in multiples of thirty-five, since this is to be the size of a S.1-4 class. The S.5 enrolments mentioned above were recommended when the size of a S.5-6 class was twenty, but they will have to be revised in terms of multiples of thirty. In this connexion, it may be pointed out that in 1965 there were thirty-six streams in S.5 giving a maximum theoretical capacity of 720, and that the 1,080 objective for 1966 can be achieved simply by bringing up the size of the class from twenty to thirty without any change in the number of streams, though with an increase in both capital and recurrent expenditure.

Another important factor is that of the sizes of individual schools. Now Uganda, being predominantly an agricultural country, has few urban complexes, which are in fact a new concept to its people and were imported, so to speak, by the British and the Asians. The 1959 census showed that only 3.7 per cent of the African population lived in towns of any size, the remainder being widely scattered across the country. As a result, the schools also tend to be scattered and rather small, often too small to be viable. Steps are now being taken to develop larger units, especially at boarding schools, and a recent decision aims at a minimum unit of three-stream S.1-4, i.e., of a capacity of 420, with units of 500 or more being the general aim. This will naturally take some time as the development of S.1 is likely to be rather slow owing to the limitations imposed by the manpower survey.

## Location of schools

The location of schools was largely determined by historical factors. As in other countries developed by the U.K., most of the education in the past was in the hands of the missions, and schools were located—often most suitably—at mission headquarters. There was, however, inevitably a certain amount of competition and duplication. The powers vested in the Minister of Education by recent legislation for control of development will ensure that development is implemented on a more rational basis.

The location of schools on a demographic basis is a self-evident principle—so long as expense is borne in mind. Day education is cheaper than boarding education in terms of both capital and recurrent expenses, and the secondary-school system in Uganda is now becoming large enough for consideration to be given to increasing the share of day education at that level. (So long as the education system was very small the number of schools was very limited, and most of them had to be boarding schools, as many of the children came from far away. With the expansion of education and an increase in the number of schools, day schools become possible.) Unfortunately, apart from a small rise in the number of day places in rural schools, an increase in the share of day education would probably mean largely urban-school development because, for historical reasons (provision of more education facilities for expatriates before independence), the number of places in urban secondary schools (which are all day schools) is completely out of proportion to the population. Thus in 1964 the five largest towns had only about 2.5 per cent of the total population, but about 40 per cent of the secondary-school enrolment.

To redress this imbalance, at least in part, many children from rural areas have been admitted to urban schools, but this has given rise to the question of hostel accommodation and all its attendant problems, such as the desirability of schoolchildren living in urban hostels. All this points to the need to concentrate future secondary development on rural secondary schools. Since there are already sixty-six secondary schools in the country, and the projected enrolment in S.1-6 for 1971 is 30,257, the considerations relating to school size and described under 'Streams and school sizes' above would seem to favour the enlarging of existing rural secondary schools rather than the opening of new ones.

However, a commitment had been made, before the working party started its calculations, on the opening of two new schools in areas not yet served, and the case constitutes a good example of the principles which should guide the location of schools. First, the areas concerned were important (district or half-district headquarters) and the numbers of children leaving JS.2 more than justified a secondary school, though it should be remembered that all secondary schools serve the whole of the country as a matter of policy. Then, local officials were consulted, and an architect was brought into the picture at the very beginning. Lastly, the ultimate possible size of each of the schools was determined, though a definite decision was made only on the first phase of the development. The exact location was settled mainly on the advice of the architect but in close consultation with the planning officer and local officials, one of the major considerations being water supply.

## On-the-job and adult education

As already mentioned, there is no effective apprenticeship or on-the-job training system in Uganda. Some semi-official bodies could co-operate in such a scheme, but this could hardly solve the problem. Employers are either not equipped for the job or afraid of the ultimate cost of a trained and qualified craftsman, preferring to take a less qualified but much cheaper workman and let him pick up the skill as he goes along. This naturally bedevils the whole field of craftsmen education, and the problem has not yet been solved.

As far as adult education is concerned, a small but growing system of evening classes, with an enrolment of over 2,000 at the time of writing, has been organized by the Ministry of Education in the seven largest towns. But the major difficulty in expanding this scheme resides in the fact, already mentioned, that only a very small proportion of the population is concentrated in urban areas; and rural premises with no lighting are hardly a place in which to conduct evening classes successfully.

An adult literacy campaign has recently been launched with some success. It is controlled by the Ministry of Planning and Community Development and does not enter the planning scheme of the Ministry of Education, though there is, of course, much contact with the formal education system at the local level, and many of the teachers in primary and junior secondary schools help with the teaching. But the planning and organization of adult education is still in its early stages. Once the development plan has been thrashed out by the working party, consideration should be given to the aims and organization of adult education.

## Planning and its practical implementation

No matter how carefully a plan is prepared and how many factors and details are taken into consideration, the educational planner cannot assume that matters will work out in strict accordance with his plan; they almost certainly will not, and by the time the new schools are running, the system may look very different from the original plan. In a sense, the planner's work has only just begun, because it is only now that the unexpected obstacles are beginning to appear. It only needs, for instance, for the building industry to become fully employed and the funds so carefully calculated in the plan become insufficient because tenders have gone up; and if the deficit cannot be made up, the only solution is a lowering of the standard of buildings and equipment or a curtailment of the planned increases in enrolments. A development plan is thus constantly being amended and sometimes even overhauled. Let us give two concrete examples from Uganda.

The enrolment forecast for S.1 in 1965 was 6,060, but two of the classes planned were not opened because buildings were not ready; also some of the enrolments planned for individual classes could not be fulfilled, usually for lack of physical facilities. At the time of writing, the final figure was not known, but a reasonable estimate would be 5,900. As soon as this was realized, the figure of 5,900 had to be substituted for 6,060 in the plan, and this meant that the estimated output at the end of 1968 will be short by 63/100 × (6,060 − 5,900), i.e., by 101 (see 'Interpretation and use of statistics' in Chapter 3) which in turn implied adjusting the future S.1 enrolment to ensure the fulfilment of the plan.

More serious are the consequences when the misfiring of a scheme makes it necessary to re-think policy. A characteristic example was provided by the grade V teacher-training course. Up to the 1962 entry, this had been a Makerere University College course, the so-called diploma course, which was often followed by students who were not likely to be successful in obtaining the normal degree. But with the expansion of Makerere this course was abandoned and replaced by a two-year post-HSC course. The latter, however, was not popular, because it had lost the Makerere prestige, and as there were numerous other opportunities for HSC candidates, even those who had failed, the entries for the course fell considerably in 1963 and 1964. This was a serious matter and, in the end, Makerere agreed to take up the course again. It is now situated at Kyambogo, a few miles away from the university, and it has been modified so as to recruit candidates with a good CSC and three years' training in addition to the HSC candidates. This is a temporary measure which will be discontinued when HSC candidates are available in sufficient numbers. The result was immediate: the planned intake for 1965 was fulfilled without any difficulty.

# 5 Planning the content of the courses

Until the end of 1964, the content of the courses was a matter for the Inspectorate, but in 1965 this task was taken over by the newly formed Institute of Education. This is a national institution situated at Makerere under the auspices of the University College and controlled jointly by the government and the college. It has made a good start, and has tackled in particular the new English syllabus for primary schools in connexion with the introduction of English into all primary schools from P.1. The Institute works in close co-operation with the teacher-training colleges, and the appointment of the ex-Senior Inspector of Schools for Teacher Training as its Deputy-Director (the Director is a former member of the staff of Makerere University College) has ensured continuity of the work formerly carried on by the Inspectorate. Preliminary moves have already been made to establish international links.

## Formulating syllabuses and curricula

At the primary level syllabuses are formulated by subject panels and have to be approved by the Ministry of Education. The members of the panels are appointed *ad personam* by the Institute and include teachers, teacher trainers, inspectors, administrators of education and university staff, the criteria being the experience, ability and usefulness of the person concerned. Obviously teacher trainers play a leading role, since it is in their colleges that the main experimental work is carried out.

At the secondary level the curriculum is largely determined by examination requirements. Schools are given considerable latitude in working out the details of the work leading to the examinations and are guided in this by inspectors for individual subjects. As for colleges training teachers for the basic course, they must orientate their syllabus to the needs of teachers who will be teaching a locally designed course, and their own course can, therefore, also be locally designed. This is done by panels appointed by the Institute.

Books suitable for courses at the secondary level are usually readily available and publishers' representatives are only too keen to sell them. At the primary level, however, especially where vernacular languages are concerned, the supply of books may be much more difficult. Language, literature and visual aids committees, as sub-committees of local education committees, have long been in existence for all language groups; they appoint readers to advise them on manuscripts submitted, and often make their own suggestions, finally choosing the manuscripts they consider suitable for the syllabus. It is proposed to establish a formal link between these committees and the vernacular subjects panel, a link which in fact already exists informally because of common membership.

Some publishers' representatives in East Africa are very keen—and competitive—in their search to obtain manuscripts for publication. There is also an East African Literature Bureau which assists with the processing of manuscripts for publication. A very good example of co-operation in producing primary-school material was the recent revision of the Oxford English course to suit the Uganda primary English syllabus, when two teacher-training college tutors were taken off their work and assigned on a full-time basis to adapt the course in co-operation with the Oxford University Press.

## Contents and costs

A very important factor in the planning of the content of the courses is their financial implications, usually in terms of books and equipment, especially at the primary level, where the only source of funds for all non-salary recurrent costs is the fee paid by the children. Now this fee is sometimes pathetically low owing to the poverty of the area concerned; primary-school fees vary from 2.50 shillings per annum for a P.1 girl in a poor area to 60 shillings per annum for a P.6 boy in a relatively rich area.[1] The financial implications have thus to be borne in mind, not only in devising the courses, but also in producing the books. The present writer learnt this lesson when, with a colleague, he produced some years ago a book which in their view achieved its educational purpose but turned out to be too expensive, so that the publisher had to go to considerable trouble and expense to rectify the situation.

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[1] The Uganda monetary unit is the shilling, divided into 100 cents and equal in value to the United Kingdom shilling. For reasons of convenience, larger sums will be expressed in pounds sterling divided decimally.

## Language policies and their effect on the syllabus

Uganda has over twenty vernacular languages and dialects, falling into four main linguistic groups, and this poses considerable problems when the medium of instruction is the vernacular. The policy has always been to use English as the medium when the children have a good enough grasp of it, and the declared policy now is that English, which is the official language of the country, shall be used as the medium from P.1 onwards as soon as possible, major vernaculars being taught as a subject. However, since there is still a large body of grade I (vernacular) teachers in primary schools (38 per cent in 1964), this policy cannot yet be fully applied but, as an interim stage, English is to be introduced immediately as a subject from P.1 in all the schools. This in itself necessitated a new English syllabus and, as already mentioned, a new course has been devised for this purpose. Clearly when the stage is reached of using English as a medium, the syllabus, probably the whole syllabus for all primary-school subjects, will have to be rewritten.

In the meantime, vernaculars remain the medium of instruction, at least in P.1-4. As the twenty-odd vernaculars could not all be used, if only because books in all of them would be a highly uneconomic proposition, it has been decided to recognize five of them, one of which divided into two main parts, as major vernaculars to be used for teaching of the printed word; the minor vernaculars could be used orally in the first two years only, and official support would be given to textbooks published in the major vernaculars only. There has, however, always been strong local conservatism over vernaculars, and minor vernaculars have often been used beyond the official limit.

This diversity of the medium of instruction has not caused much difficulty in the drawing up of syllabuses, except of course those for the study of the vernacular language itself, for which the central panel could only lay down general principles, leaving the details for local consideration. Syllabuses for other subjects, such as arithmetic, nature study, geography and history, were drawn up in English and translated where necessary for grade I teachers.

## Examinations and promotion of pupils

As can be seen in Appendix A, the examination section comes under the control of the Chief Inspector of Schools. Its main task is to administer the CSC and HSC examinations, the City and Guilds (London) examinations, the Uganda Junior Secondary Leaving (JSL) examination, which is to be designated as Primary Leaving Examination in 1967, when the primary system is reorganized, and various incidental examinations which arise from time to time. Later, the Uganda Diploma in Engineering will be added to this list.

The entry of students to secondary schools is strictly controlled. Candidates for secondary schools have to list on their application forms for entry to the JSL examination six schools of their choice in order of priority. When the examination results are known, a minimum mark is determined to qualify a candidate for consideration for entry to a secondary school, and all candidates above that mark are listed in order of merit. A meeting of all heads of schools is then called under the chairmanship of the Chief Inspector of Schools, and, starting from the top, candidates are 'offered' to the schools in order of their choice, the purpose being to ensure that no worthy candidate fails to find a place. A small margin is left to allow for special cases, subject to the approval of the Chief Education Officer. A similar procedure is followed for entry to S.5.

Practically every candidate wishes to enter a secondary school in preference to a technical school or a teacher-training college, and whatever one's views on the desirability or otherwise of this attitude, no amount of sermonizing and persuasion is likely to alter it. Apart, therefore, from the few candidates who opt for them as their first choice, the technical schools and teacher-training colleges take their pupils only after the result of the 'auction' for secondary schools is known.

Movement within a course is by automatic promotion. Repeating obviously blocks the promotion of children underneath and, ultimately, admission to the first year of the course, and thus raises the average cost of taking a pupil through the whole course. In cases of illness repeating may be unavoidable, but the general policy is to practise regular promotion as much as possible. Hence the need for statistics on repeating.

# 6 The supply and training of teachers

Once the size of the school system has been determined (see Chapter 4), the number of teachers required annually can be calculated by applying staffing formulae and taking into account the number needed for replacing wastage. Let us first consider wastage.

## Assessing the wastage of teachers

A study of the wastage of teachers in P.1-6 showed the net loss to have been 641 between 1958 and 1959, and 642, 356, 504, 250 and 354 respectively for the five following one-year periods. The net loss between 1963 and 1964, i.e., 354, represents only about 3 per cent of the 1963 stock of teachers and might, therefore, be considered as small indeed. But when this figure is set against the numbers required for both replacement and development—a little over 1,000 per year between 1965 and 1971—it takes on a much greater significance and becomes much more important for calculating the future teacher supply.

But the figures of the past are not of much use for determining future projections, and a more thorough investigation was clearly necessary. Retirement figures were known from pension payments, but mortality was not easy to assess as the notification of deaths was not done regularly. Nor was it possible to guess, let alone assess, the net result of those leaving the service, temporarily or permanently, and those returning to it. Lastly, detailed statistics of teachers by year of qualification and age were not available for the period prior to 1964.

A short-cut method was, therefore, devised for the purpose. From the 1964 statistical form shown in Appendix D.4 a record was made of the number of teachers still in service by year of qualification. It should be mentioned that the year of qualification is incorporated into the registration number; thus, for instance, II.62.314 means a grade II teacher qualified in 1962, No. 314. The original number of teachers who qualified each year was known from the registers of teachers. It was, therefore, possible, after taking account of upgrading, to draw up a table of teacher wastage based on the number of years since qualification. This was done for each grade of teacher by sex to facilitate further detailed analysis, and the results were added. Appendix H.1 shows the wastage table of men teachers in grade II (there is obviously an error in the 1963 figure).

The same procedure was applied to grade I teachers to obtain the totals of grade I and grade II teachers. These were put through a computer in an attempt to fit a curve to the data. The best fit proved to be the 15th polynomial (see Appendixes H.2 and H.3), but the fluctuations in the curve were so irregular that it was thought advisable to smooth the curve before using it for estimates of future wastage. The curve will, of course, have to be checked every year and adjusted in the light of experience.

## Staffing ratios and formulae

As far as the application of staffing formulae is concerned, it should be noted that, with one or two minor exceptions, Uganda follows the rule that primary education is day education. The demand for primary education is so great that all teachers available for development must be used as far as possible for additional classes, the primary teacher in Uganda being generally a class teacher as distinct from a subject teacher. The official formula allows for a supernumerary headmaster when a school reaches full P.7 status, but with the change to the P.7 system in 1967 some 400 supernumerary posts will have to be changed to class posts to allow for a teacher per class for the greatly increased number of P.7 classes, so that the supernumerary posts will in fact be nothing but a theoretical establishment formula for some considerable time.

In secondary schools the basic formula is three teachers for two classes. If a teacher normally teaches only half a class, as in the case of woodwork, metalwork and home economics teachers, he counts only for half in the application of the formula. The usual result is an establishment ratio of teachers to classes of 13 : 8 plus a supernumerary headmaster. With a S.1-4 class of thirty-five, this gives a pupil-teacher ratio of about 21 : 1, and with a S.5-6 class of thirty a ratio of about 18 : 1. These ratios have been criticized as too generous, but it should be remembered that they represent an establishment, and an establishment, moreover, which has still to be filled largely by expatriates, and that in reality very few schools are at any time fully up to establishment. There is a delay of at least six months in recruiting expatriates, and those who renew their contract spend an average of one-seventh of their time on vacation leave, so that for most of the time the real establishment is less than 3 : 2, including 'half' teachers.

Teacher-training colleges for grades II and III have a pupil-tutor ratio of 15 : 1 plus a supernumerary principal. This ratio has been worked out as a result of experience. University and grade V teacher training is based on a ratio of 10 : 1, again worked out from experience.

From these ratios the numbers of teachers required for development at each level are worked out. By adding the numbers required for replacement of wastage, the total output needed for both purposes is then obtained. To translate this total output into enrolments, it is only necessary to apply the known ratios of passes to first-year enrolments for each grade of the teacher-training courses.

## Planning the teacher-training colleges

Many of the principles stated under 'Streams and school sizes' and 'Location of schools' in Chapter 4, and relating to the size and location of secondary schools apply with equal force to teacher-training colleges. Training for grade V has been concentrated advantageously at Kyambogo, but training for grades III and II has been bedevilled by the existing system of twenty-six scattered colleges with a total of 3,600 places varying in capacity from 50 to 210 places. In the past two or three years plans have been made to rationalize the system and to kill two birds with one stone, i.e., to concentrate the 3,600 places in four large regional colleges, and at the same time to convert all primary-teacher training to grade III. This would not only raise the quality of the teachers, but also double the annual output from 900 to 1,800 as a result of reducing the four-year course to two years. At the same time, the old colleges, some of which are contiguous to secondary schools, could have been handed over for secondary education.

Unfortunately, the working party found that the country cannot afford to maintain an establishment of grade III teachers cumulating at a rate of 1,800 each year, although it agreed that this total was necessary to maintain a minimum primary development and replace wastage. It found that the best the circumstances allowed was 900 grade III and 900 grade II teachers. Furthermore, as was pointed out under 'Location of schools' in Chapter 4, the working party found that the enlarging of existing rural secondary schools was preferable to the opening of new ones, and this would seem to preclude the conversion of at least those of the colleges that were not contiguous to existing secondary schools. At the time of writing, the problem of what to do with these colleges was one of the working party's outstanding preoccupations.

## Entry qualifications and length of training

The entry qualifications and length of training at colleges for primary-school teachers have varied from time to time. Grade I (vernacular) teachers, whose training ceased in 1954, had six years of (primary) education plus two years of training. Grade II teachers originally had nine years of education plus three years of training, but when grade I training was abandoned, grade II training was shortened to six plus four years. Eventually, the supply of JSL candidates increased sufficiently to make it possible to raise this training period to eight plus four years, starting with the 1959 entry. Of the four years' training, the first two are devoted to increasing the pupil's background knowledge in accordance with the needs of his future career, and the remaining two to professional training.

In connexion with the length of training, mention should be made of upgrading and refresher courses, which have always been a feature of Uganda's educational system. Hitherto these courses have been held at the teacher-training colleges, but recently it has been decided to establish four regional in-service colleges for this purpose (one of them has already started the course). The colleges will run such courses as are needed from time to time, and their initial task will be to acquaint primary-school teachers with the new English syllabus. There is also an in-service centre at Kampala which has for some years been experimenting with a scheme for using English as a medium from the very beginning with children who know no English when they first enter school. This centre will prove a useful nucleus when the use of English as a medium becomes more general.

## Expatriate staff

As has already been noted, Uganda is still largely dependent on expatriate staff for second-level education. Africanization has proceeded rapidly in all spheres of employment other than education since 1962, leaving little high-level manpower for education. This situation will change when the educational system, developed in accordance with the working party's recommendations, gets into full stride; but, meanwhile, teaching remains very low on the list of preferences of graduates—in Uganda as well as elsewhere. According to plans, all top-level posts will be Africanized by 1981, but it is likely that only economic pressures will eventually force enough graduates to enter the teaching profession.

It is also planned to replace expatriates by non-graduate grade V teachers. The first large intake for this grade (125) was enrolled in 1965.

# 7 The financial aspect

It now remains to calculate the cost, both recurrent and capital, of the projected development. This, however, is by no means a simple task owing to the history and nature of Uganda's accounting system.

## The accounting system

The system of accounting used before independence did not lend itself to the calculation of the running costs of any particular level or type of education. The emoluments of expatriate teachers were put under one head and are now inextricable. The format of the estimates of the Ministry of Education has now been changed so that the expenditures on the various branches of the educational system can be classified separately, but the inevitable time-lag between preparing the estimates and publishing the final accounts means that, at the time of writing, the only published accounts available in this form are those for the financial year ending 30 June 1964. A further complication arises from the fact that primary and junior secondary schools (with the exception of demonstration schools at teacher-training colleges) are administered by kingdom and local authorities, and second-level education in Buganda by the kingdom government, and that all these authorities work on a financial year ending 31 December, whereas the central government's financial year ends on 30 June. Again no audited accounts of these authorities are available since the transfer to them of those services on 1 July 1962.

For the time being, therefore, costs, especially recurrent costs, have to be calculated in different ways for the different sectors of education, according to the information available. In future, the planning unit will call for financial information which will enable it to make precise calculations of costs. One very important item on which no summarized information has hitherto been available is the collection of fees in primary schools; now that the control of these fees is located in the area education offices, it will be possible to gather the information required.

## Dealing with the cost factors

Costs in all spheres have a habit of creeping up and, once they have risen, are very difficult to bring down. Education is no exception to this rule, and the planning unit has had constantly to keep an eye on cost trends and usually to curb increases and even try to reduce costs.

One of the factors which tended to increase costs was the decision to broaden the curriculum of the secondary-school course (see note 1 to Figure 1, page 18) because it called for the provision of practical rooms, which meant that ordinary class-rooms would be vacant for a large proportion of the time during which they should normally be occupied. Applying the standard of accommodation as shown in Appendix B to a two-stream S.1-4 school (as many schools are at present), the numbers of 'seat places' worked out as shown in Table 4.

In other words, in a school for 280 there were 159 'seats' always vacant in a girls' school and 212 'seats' vacant in a boys' or a mixed school. This led to one of the *ad hoc* meetings mentioned at the beginning of this study and a recommendation that the number of ordinary class-rooms in secondary schools should be reduced to three for each four classes, making a total number of seats of 422 with a seat-pupil ratio of 1.51 in a boys' or a mixed school, and a total of 369 seats with a ratio of 1.32 in a girls' school. This left classes without a 'home' class-room,

TABLE 4. Number of seat places[1]

| Type of teaching room | Type of school | | |
|---|---|---|---|
| | Boys | Girls | Mixed |
| Class-rooms (8) | 280 | 280 | 280 |
| Art and craft room (1) | 35 | 35 | 35 |
| Laboratories (2) | 70 | 70 | 70 |
| Home economics combined practical room | — | (2)36 | (1)18 |
| Home economics extra practical room | — | (1)18 | (1)18 |
| Woodwork workshop | (2)36 | — | (1)18 |
| Metalwork workshop | (2)36 | — | (1)18 |
| Drawing room | (1)35 | — | (1)35 |
| TOTALS (for 280 places) | 492 | 439 | 492 |
| Seat-pupil ratio | 1.76 | 1.57 | 1.76 |

1. Figures in parentheses refer to number of class-rooms required.

but this sacrifice was considered necessary. It was also suggested that an ordinary class-room be used for technical drawing, but the technical inspectors persuaded the meeting that a specially equipped room was necessary.

Another factor which can reduce capital and even recurrent costs is the double-session system, which envisages a full secondary education conducted by two sets of teachers using the same premises twice a day. This has now been organized almost completely in urban, day secondary schools, where it is, of course, much easier to operate than in boarding schools. The amount of capital expenditure involved is not very great so long as there is no need for increasing boarding facilities; the main item is staff housing, the others are extra initial textbooks, some supplementary laboratory equipment and more library books. This scheme has added twenty-nine streams, i.e., some 28 per cent, to the 1964 secondary system.

Another important cost factor is the pupil-teacher ratio: clearly, the higher the ratio the lower the teacher cost per place. In striking the balance, the guiding principle is that teachers should be used to the fullest extent compatible with efficiency. The 3 : 2 ratio of teachers to classes mentioned earlier was based on an average teaching time of 28 × 45 minute periods out of a forty-period week, leaving the remaining twelve periods for marking and preparation. This has been criticized as too low a teaching load, but as the establishment is normally under strength, the teaching load usually amounts at least to thirty periods per week. This means that the actual recurrent cost per place is lower than the theoretical one based on a full establishment. The Uganda Treasury realistically acknowledges this fact and, as a normal practice, deducts a percentage from the estimates for secondary-level teacher costs to allow for vacancies in the establishment. It should be borne in mind, however, that, as the teaching force becomes increasingly Africanized and the recruitment time-lag and overseas leave with regard to expatriates become of less importance, it should be possible in principle to lower the established teacher-class ratio without increasing the actual load per teacher. In practice, this will depend on the degree of success in recruiting African teachers.

## Calculating recurrent costs

As already mentioned above, owing to the difficulties due to the accounting system, costs, especially recurrent costs, have to be calculated on the basis of whatever information is available. The two examples given below relate to primary and secondary education respectively.

The first concerns primary schools and is based on the estimates of the kingdom and local authorities which administer these schools. The calculation is shown in Appendix I. Minor towns are included in the rural figures because their educational facilities come nearer to those of the 'district' type than to those of the main towns. A few small and medium-size towns are missing in the table owing to lack of information, but since they represent only 0.5 per cent of the total they can be ignored for the purposes of this calculation. Since by far the greatest task of these authorities is the administration of primary and junior secondary education, all administration costs and other miscellaneous expenses have been charged to the cost of running primary and junior secondary education, especially as the vocational schools are scheduled to disappear (see note 1 to Figure 1). In the case of Buganda, however, the administration costs were divided proportionately to school running costs between primary- and second-level schools.

The figures in Appendix I were based on salaries and allowances as they were prior to the revision in July 1964. The additional annual cost for the areas shown in the appendix as a result of this revision is estimated at about £380,000 which, for the 528,646 enrolment concerned, represents £0.7 per place. This added to the £7 total for the areas shown in the appendix gives an average annual recurrent cost to public funds of £7.7 per primary-school place (including junior secondary).

To this must be added the fees, for which no audited accounts were available and which had to be assessed as best they could. From the experience of officers who are familiar with the fees collected, it was estimated that the average would vary between 25 and 30 shillings per child. Taking a figure of £1.3, the total cost per primary (and junior secondary) school place would amount to £9.0.

The second example concerns secondary education, for which more accurate information is available. Audited accounts for Buganda were not available, but those of the central government for 1963-64 were available in a form which made it easy to extract the figures for public expenditure on secondary education. It was therefore decided to use the central government figures as a basis.

The paper prepared for this purpose for the working party is shown in Appendix J. There were a few complicating factors: a residual secondary modern course was being abolished and was disappearing; the pattern of the teaching force would change by 1971, the final year of the next development period, as a result of the planned production of more Ugandan teachers; lastly, all calculations for 1963 and 1964 had to be averaged because of the financial year ending 30 June. The annual recurrent costs per place came to £107.0 for S.1-4 and £123.0 for S.5-6. Appendix J also gives the calculations for technical schools and teacher-training colleges (grade III and grade II teachers).

Knowing the projected enrolments, it is easy to calculate the recurrent costs for the different levels and types of education. These costs are shown in Table 5.

The working party now had to compare the total as calculated on the basis of enrolments and recurrent costs per place with the total as calculated on the basis of the manpower survey, based on the doubling of gross domestic product per head between 1966 and 1981. The first GDP objective for 1971 had been calculated and divided amongst ten sectors in accordance with a model. Education—one of

TABLE 5. Recurrent costs of different types of education

| Type of education | Rate per annum (£) | Enrolment in 1971 | Total cost (£,000s) |
|---|---|---|---|
| Primary | 9 | 720 080 | 6 481 |
| S.1-4 | 107 | 27 059 | 2 895 |
| S.5-6 | 123 | 3 198 | 393 |
| Grade II.TT | 120 | 3 600 | 432 |
| Grade III. TT | 297 | 1 800 | 535 |
| Grade V. TT | 500 | 500 | 250 |
| Technical colleges | 500 | 304 | 152 |
| Commercial colleges | 250 | 500 | 125 |
| Technical and farm | 137.5 | 3 570 | 491 |
| University | 1 000 | 1 608 | 1 608 |
| Overseas | | | 500 |
| Departmental[1] | | | 150 |
| TOTAL | | | 13 962 |

[1] Specialist vocational education conducted by government departments outside the Ministry of Education.

the ten sectors—had a figure of £12 million, which represented actual expenditure for the year 1971, and did not therefore include amortization of premises and equipment, except to the extent that these were maintained or replaced during the year. Nor did this figure include capital expenditure during 1971 which came under the head 'Industry and construction'.

As can be seen, the total of £13,962,000 determined on the basis of enrolments and costs per place exceeds only by 16 per cent the £12 million allocated on the basis of the rise in GDP. The next obvious task was to see if any costing rates could be lowered, and in this connexion the university and the grade III teacher training were clearly the first choices for a possible cut. At the time of writing, the working party was engaged on this task.

## Calculating capital costs

During the 1950s and early 1960s, the capital costs of schools in Uganda rose to such an extent that, recently, even the estimates of £750 per S.1-4 place and of £850 per S.5-6 place have seemed to be too low. This was a matter for some concern, especially as Kenya was building at much cheaper rates. When approached, the Kenya Ministry of Education very generously gave Uganda a free hand to use its plans and, as a result, a critical comparison was made with a view to evolving ideas on which to found an entirely new set of scales and standards, thereby also reducing the amount spent on architects' and other professional fees, which were running at between 6 and 15 per cent of the contract price. The *ad hoc* committee which followed, and its outcome, have been described in Chapter 1, under 'Other planning bodies'.

The capital cost per secondary-school place which results from Appendix B will vary slightly according to the kind of school (boys, girls, mixed, with a general, agricultural or commercial bias), but the average cost per place, including buildings, works, furniture and equipment, comes to about £550, which is a considerable improvement on the previous £750 to £850. Moreover, a higher proportion of this sum (16 per cent) than that allowed previously will go to furniture and equipment. It should be borne in mind, however, that the building industry is subject to tenders and that contract prices can be affected by wage claims, taxes and duties as well as by a boom in building.

At the time of writing, the working party had not reached the stage of calculating the capital cost of the 1966-71 development programme. The procedure to be followed is, of course, similar to that used for recurrent costs. Of the £230 million allocated for total investment during the period, the share of education is £12 million. Since S.1-4 is to be increased by 11,838 places and S.5-6 by 1,993 places, secondary expansion alone will cost £550×(11,838+1,993), i.e., some £7.5 million. It looks, therefore, as though the working party will have a difficult task in fitting the capital programme into the figure of £12 million, but it will be helped by the fact that most of the expansion of primary education is achieved by the efforts of parents (in the form of labour, for instance). All in all, therefore, some £4.5 million would be left for primary, university, technical and commercial education and teacher training. Clearly, consideration may have to be given to allocating a somewhat larger share to education.

## Comparing costs for different kinds of schools

Once the costs per place, both recurrent and capital, are known, it is a simple matter to calculate quickly the cost of a proposal and to make comparisons between different kinds of schools. If, for instance, it were suggested that ten new treble-stream S.1-4 schools be opened, the capital cost would be 10×4×35×3×550=£2,310,000 and the additional recurrent cost 10×4×35×3×107=£449,400.

In the same way, it is possible to compare, in terms of certain costs, boarding and day schools. By extracting the relevant figures from Appendix J, the comparison shown in Table 6 can be established for S.1-4 classes.

So much for recurrent costs. But capital costs show an even greater margin, since the cost of a day-school place is estimated at £370, against £550 for a boarding school. Clearly, for a given amount of money, day schools would mean a much greater development than boarding schools but, as was pointed

TABLE 6. Comparison in costs between boarding and day schools

| Cost item | | £ per place per annum | |
|---|---|---|---|
| | | Boarding school | Day school |
| Teacher element | (par. 19) | 63.7 | 63.7 |
| Capitation | (par. 1) | 22.5 | 5.0 |
| Block grant | (par. 2) | 4.0 | 4.0 |
| Fees | (par. 10) | 25.0 | 17.0 |
| TOTAL | | 115.2 | 89.7 |

out earlier, the distribution of the population does not always make this possible.

Similarly, a comparison can be made between rural and urban schools. At the second-level this amounts in practice to a comparison between boarding and day schools for reasons explained earlier (see 'Location of schools' in Chapter 4). At the primary level, however, another factor enters the calculations. The large difference between the recurrent costs of rural and urban places shown in Appendix I—£6.4 and £22.6 respectively—might seem alarming, but it is in fact due to a deliberate policy. Before independence, urban primary education was largely designed for Asian and European expatriates, who resided mostly in the larger towns; and experience has shown that there is still a need for that type of education suitably integrated. The country still needs expatriates, and the existence of English-type schools, especially at the primary level, is an important factor in inducing expatriates to accept appointments. There are also the children of the growing diplomatic corps and the educated Ugandans who wish to take advantage of, and are prepared to pay for, education of this kind for their children. The higher cost of these schools is largely counter-balanced by the revenue from higher fees.

## Administration and control of expenditure

The central government has by far the largest share of financial control. Fees usually provide less than 20 per cent of the recurrent costs, the remainder coming from public funds. Again some 80 per cent of the expenditure of kingdom and local authorities on primary education is provided by statutory or block grants from the central government. In fact, no significant development can take place without the finance provided by the central authority.

The Treasury instructions place the responsibility for control of expenditure of government funds for education and educational development personally on the Permanent Secretary to the Ministry of Education, but give him the power to delegate his authority. In reality, the development expenditure is administered by the planning unit, and it is the planning officer who incurs expenditure in the name of the Permanent Secretary. The actual authorizing of expenditure is done by an education officer in the planning unit under the close control of the planning officer.

The present system is mainly based on grants to the boards of governors and management committees which administer secondary and primary schools respectively. The school estimates must be approved by the ministry or the local education committee, as the case may be, and, within defined limits, boards of governors and management committees are bound to keep to these estimates, which are cast in a form approved by the ministry. The provision of furniture and equipment for development purposes is made similarly by a grant after the school has satisfied the planning officer (in fact, his education officer advised by specialist inspectors) that the request is reasonable and suitable to its needs.

The allocation of the quantitative development of primary and junior secondary services to the various authorities is done by the planning unit with the approval of the Minister of Education. When these authorities are in possession of this information, local education committees submit their proposals for allocation to individual schools for the approval of the ministry. If the latter approves, it grants to the authority concerned the necessary funds, and the education committee controls the development.

In Buganda second-level development is first discussed between the two Ministries of Education, and when the proposals are approved by the Minister of Education of the central government, capital development passes under the control of the planning unit, while the Buganda ministry gets grants for the running of the service.

At the implementation stage, capital expenditure at the second level has hitherto taken the form of grants to boards of governors under the control of architects, who naturally receive a fee for their services. The exceptions to this rule have been schools founded by the government which are in the minority and for which the work has been directed by the ministry or corporation officially charged with the control of public building. The Ministry of Education has felt for some time now that, as standard plans are now available, it should have its own architects and a works supervisory section so as to centralize the control of the school-building programme and thus promote efficiency and economy. In particular, such control would make it possible to offer bulk contracts for several neighbouring schools, a practice likely to lead to economies. At the time of writing, however, this section, which is to be part of the planning unit, has not yet materialized. When it does, the system of grants will have to be modified.

Likewise consideration has been given to centralized bulk purchase of furniture and equipment. Up to now only some kitchen equipment and engineering equipment for technical schools have been purchased through the Crown Agents for

Overseas governments and administration in London by competitive tender. It may be noted that these purchases are free of customs duty; this, though not making any difference to the economy as a whole, helps the Ministry of Education in getting a larger 'share of the national cake'. This system is likely to be expanded.

Whilst the development is proceeding, the officer administering the level or type of education concerned is informed of the details of the progression of classes by a form such as is shown in Appendix K.[1] He can then apply the staffing formulae and capitation rates, and make provision in the recurrent estimates for the additional staff required. Thus when the work is completed, the administration of the developed service automatically passes into his hands.

It is realized, however, that a proper control of expenditure requires more detailed information than is available at present. It requires financial statistics in a form which would enable trends to be watched and, if necessary, curbed; it requires summarized information on salaries, allowances, expenditure on teaching equipment, and on such topics as the respective costs of arts and science in S.5-6.

With this end in view, a committee produced recommendations for a form of accounts for schools administered by boards of governors which are shown in Appendix L. The characteristic of this form is that the totals for the vertical columns I to IV added as far as the horizontal row E (and entered in row F) give the recurrent expenditure broken down to purposes (living, tuition, medical, administration), whereas the totals for the horizontal rows A to E entered under V give the breakdown by type of expenditure (salaries, stores, transport, maintenance, depreciation). Square V.F shows the total expenditure, which should be the same for the vertical column as for the horizontal row. Column VI is merely another way of analysing row C, and column VII another way of analysing row D. Capital and replacement expenditures are then entered in rows G and I respectively. This system lends itself to punch-card treatment, and thus to the building up of over-all statistics.

## Foreign aid for education

A very important part of the planning unit's work is the preparation of applications for external aid and the control of the various phases of the projects concerned. This involves long and detailed discussions with the representatives of the aiding bodies, preparation of detailed background and project information, and ample reports on the progress of the scheme. Banks and agencies which grant loans or assistance naturally want to know what is going to be done with their money, and whether the receiving country can afford to maintain the scheme and, if need be, repay the loan and pay the interest. Ultimately, this is a matter for the Ministry of Finance, which negotiates and finalizes the loan agreement, though the initial spade-work is done by the planning unit of the Ministry of Education. The approach may differ according to agencies, but there are certain fundamental questions which all of them are likely to ask: What is the educational background and the development plan into which the project is to fit? What is the purpose of the project and how does it fit into the plan? Is the loan or grant to be spent in the most economic manner, and how will the expenditure be controlled? Can the receiving country maintain the resulting scheme and, where appropriate, repay the loan with interest?

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[1] Appendix K was based on the development plan prior to the working party's recommendations, and the 1966 figures do not, therefore, conform with the enrolments as given in Table 3 in the text.

The answers to these questions require a wealth of information, and it usually takes at least a year between the first discussions and the signing of the agreement.

# Conclusions

There is no doubt that placing the control of all stages of planning and development in the hands of one unit has been an unqualified success; in fact, with the hindsight of experience, it is difficult to visualize any other way of carrying out such a task. It means that the planning officer is constantly *au fait* with the situation, changes in policy, difficulties which inevitably arise, and is thus able to take steps to ensure that the development proceeds. Within the framework of over-all policy, he has considerable power and responsibility, and his control of the capital vote for education makes him the key-figure in educational development.

These powers make it all the more necessary for him to inform and consult the right people and, if need be, to refer to higher authority. It is often difficult to appreciate when to make a decision and when to refer to higher authority; this only comes with experience. But the organizational framework, as shown in Appendix A and described in Chapter 1, makes it possible to avoid petty despotism. A great deal depends on personalities, but there are times when the planning officer has to bring home some hard and unpalatable truths—usually economic facts—to his colleagues. The paramount object, of course, is to use the available resources to the best advantage. In this connexion, the link with research can be extremely useful. The planners may have neither the time not the expertise to investigate a problem, and a formal link between the planning unit and research organizations ensures that such problems are investigated with the necessary expertise and detachment.

One thing which stands out clearly is the importance of detailed statistical information at all stages of educational planning and development. But there is no point in collecting data which are irrelevant: they only cause complaints from those who have to collect them, and complications and delays in analysing and processing data that are necessary. Yet it might well be the case that even more information than is proposed in Appendix F is necessary, such as average attendance, use of school facilities, and perhaps another set of statistics for the last term of the school year to assess the effects of drop-out and accession during the year. There is certainly a need for better statistics on finance.

Textbooks and teaching equipment are of such importance that a case can be made for a subsidy to supplement fees in poorer areas so as to enable a minimum scale of equipment to be provided.

In view of the almost inevitable conflict between educational needs based on manpower requirements and those that are dictated by the universal desire for education, it might be advisable to express the forecasts within a wider range so as to take some account of the human aspiration element.

It would be of considerable help to educational planners in developing countries if the various agencies offering aid could co-ordinate and standardize the classification of the information they require. At present, the planner has to approach each application for aid as a separate, very large exercise, and this inevitably makes for duplication and waste of effort.

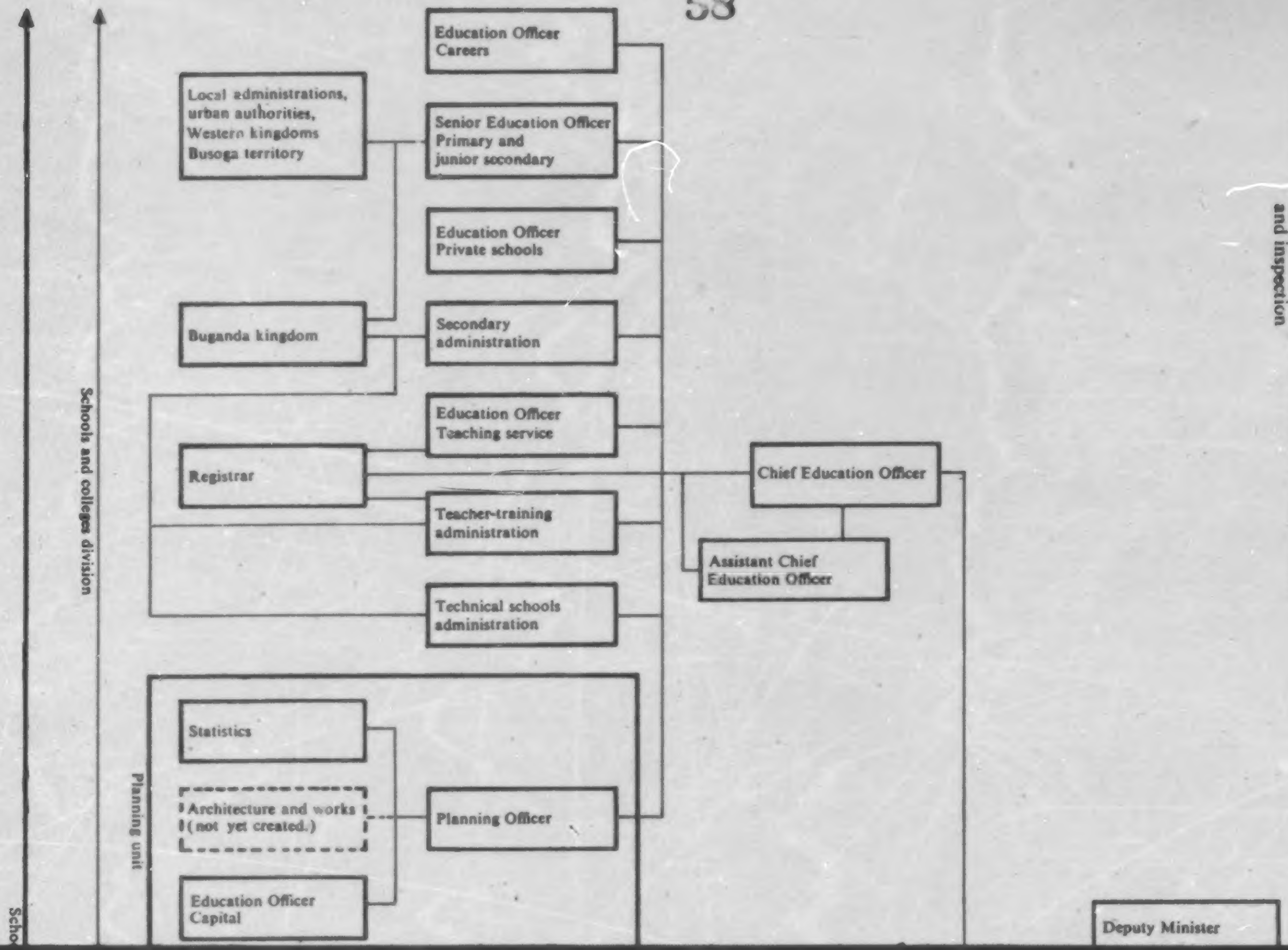
But whether he deals with external aid agencies or with the various interests in his own country, the education planner often finds himself in the position of holding the balance, usually between teachers with ideas, often expensive ideas, on the one hand, and hard-headed economists and financiers, on the other. Although an educationist, he should be fully conversant with economic facts and able to make quick assessments, striking the right balance between educational needs and economic necessities. Often he is the only person qualified to do so.

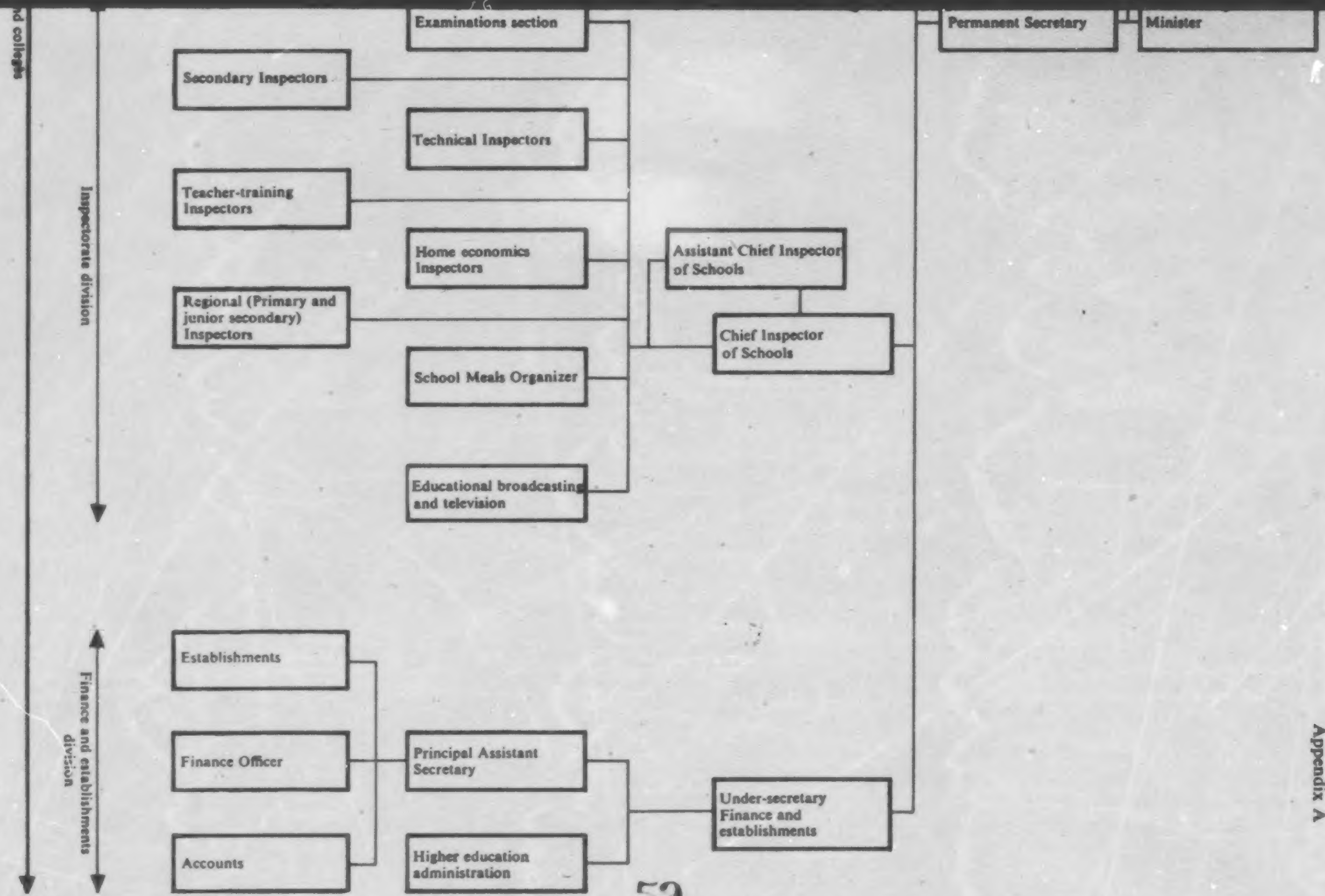
This does not mean that the qualitative aspects of education should or could be neglected. In fact, they are so important that they need to be placed under separate control. In this respect, the Uganda system is working well, and the personal contacts between the planning unit, on the one hand, and the Inspectorate and Institute of Education, on the other, ensure mutual information and understanding.

# Appendixes

A Uganda. Structure of education administration and inspection.
B Secondary-school building, furniture and equipment standards and scales.
C Smoothed curve of population age groups (1959 census).
D Statistics forms for schools for 1966.
E Specimens of 1964 published statistics.
F Contents of the Uganda Ministry of Education *Statistical yearbook*, 1966.
G Age structure in primary and junior secondary schools, 1964.
H Teacher wastage data.
I Estimates of expenditure by kingdoms, local administrations and urban authorities, 1964.
J *Per capita* costs of the different sectors of education, 1963-64.
K Class progression in secondary schools, 1964-66.
L Suggested form of school estimates/accounts.

## APPENDIX A Uganda. Structure of education administration and inspection


Schools and colleges division
Education Officer Careers
Local administrations, urban authorities, Western kingdoms Busoga territory
Senior Education Officer Primary and junior secondary
Education Officer Private schools
Buganda kingdom
Secondary administration
Education Officer Teaching service
Registrar
Chief Education Officer
Teacher-training administration
Assistant Chief Education Officer
Technical schools administration
Planning unit
Statistics
Architecture and works (not yet created.)
Planning Officer
Education Officer Capital
Deputy Minister
Scho


nd colleges
Inspectorate division
Examinations section
Secondary Inspectors
Technical Inspectors
Teacher-training Inspectors
Home economics Inspectors
Regional (Primary and junior secondary) Inspectors
School Meals Organizer
Educational broadcasting and television
Assistant Chief Inspector of Schools
Chief Inspector of Schools
Permanent Secretary
Minister
Finance and establishments division
Establishments
Finance Officer
Accounts
Principal Assistant Secretary
Higher education administration
Under-secretary Finance and establishments

## APPENDIX B Secondary-school building, furniture and equipment standards and scales

*(See notes, pp. 66-67.)*

| Item No. | Building/work | Unit basis | Scale of units |
|---|---|---|---|
| 1 | Offices | Complete | One per school |
| 2 | Staff room | Established teacher post | × number of approved teacher posts |
| 3 | Library | CSC place | × number of CSC places |
| | | HSC place | × number of HSC places |
| 4 | Class-room for thirty-five | Complete | × number of approved CSC classes<br>× ½ number of approved TS classes |
| 5 | Class-room for twenty-five | Complete | × number of approved TTC classes |
| 6 | Class-room for twenty | Complete | × number of approved HSC classes |
| 7 | Class-room stores | Class-room | × number of approved class-rooms |
| 8 | Geography room | Complete | One when HSC geography begins |
| 9 | Art and craft room | Complete | See notes, page 62 |
| 10 | Laboratory | Complete | One per stream CSC;<br>One per science stream HSC |
| | | Per single group of laboratories offering physics, chemistry and biology | 1st year CSC<br>2nd year CSC<br>3rd year CSC<br>1st year HSC |
| 11 | Home economics combined practical room | Complete | See notes, page 62 |
| 12 | Home economics model house | Complete | See notes, page 62 |
| 13 | Home econs extra practical room | Complete | See notes, page 62 |
| 14 | Woodwork workshop | Complete | One per stream taking subject |
| 15 | WCs (day school) | Place | × number of approved places |
| 16 | Class-room WCs (boarding school) | Place | × number of approved places |
| 17 | Dormitory | Place | × number of approved places |
| 18 | Dhobi drying area | Place | × number of approved places |
| 19 | Students' common room | Place | × number of approved places |
| 20 | Sick bay | Place | × number of approved places |
| 21 | Matron's quarter | Complete | One per school |
| 22 | Dining hall | Place | × number of approved places |
| 23 | Kitchen | Place | × number of approved places |
| 24 | Assembly hall | Place | × number of approved places |
| 25 | Stores, maintenance of premises | Up to 280 places | One per school of up to 280 places |
| | | Over 280 places | One per school of over 280 places |
| 26 | Head's house | Complete | One per school |
| 27 | Teacher's/bursar's house | Complete | × number of approved teacher/ bursar posts |
| 28 | Subordinate staff housing | Approved post | × four (two cooks, one driver, one quartermaster) |
| 29 | Water supply | To be separately approved according to circumstances | |
| 30 | Sewage | | |
| 31 | Electricity | | |
| 32 | Other site works | | |
| 33 | Initial textbooks | CSC class | × number of approved CSC classes |
| | | HSC class | × number of approved HSC classes |
| 34 | Other initial teaching equipment | School | One per school |
| 35 | Vehicle | School | One per school |

| Works | | | | Furniture and equipment | |
|---|---|---|---|---|---|
| Area (sq. ft.) | | Costing | | | |
| Floor | Superficial | Shillings per sq. ft. | £ per unit | Nature | £ per unit |
| 470 | 790 | 28 | 1 110 | Furniture and equipment | 220 |
| 29 | 49 | 28 | 69 | Furniture | 3 |
| 5 | 6.45 | 23 | 7.42 | Furniture and equipment | 0.6 |
| | | | | Books | 2.86 |
| 7 | 9.11 | 23 | 10.48 | Furniture and equipment | 1.2 |
| | | | | Books | 10 |
| 665 | 910 | 22 | 1 000 | Furniture | 190 |
| 500 | 719 | 22 | 790 | Furniture | 140 |
| 460 | 659 | 22 | 720 | Furniture | 120 |
| 10 per cent of class-room | 10 per cent of class-room | 22 | 10 per cent of class-room | — | — |
| 997 | 1 321 | 24.50 | 1 620 | Furniture and equipment | 450 |
| 997 | 1 321 | 24.50 | 1 620 | Furniture and equipment | 450 |
| (1 150) | | | | Gas installation | 270 |
| 1 380 | 1 843 | 30.50 | 2 810 | Furniture | 450 |
| | | | | Teaching equipment | 500<br>500<br>800<br>3 300 |
| | 1 824 | 28 | 2 550 | Furniture and equipment | 1 010 |
| | 1 482 | 40 | 2 964 | Furniture | 100 |
| | 1 824 | 28 | 2 550 | Furniture and equipment | 240 |
| 810 | 1 186 | 22 | 1 305 | Furniture and equipment | 450 |
| | 0.8 | 60 | 2.4 | — | — |
| | 0.4 | 60 | 1.2 | — | — |
| Sleeping 45 | 74.67 | 29 | 108 | Furniture | 12 |
| 7 | 7.35 | 20 | 7.35 | — | — |
| 4 | 5.20 | 23 | 6 | Furniture | 0.65 |
| Sleeping 2 | 3.88 | 29 | 5.63 | Furniture and equipment | 0.6 |
| 500 | 729 | 29 | 1 060 | Furniture and equipment | 150 |
| 10 | 12.37 | 30 | 26.7 | Furniture and equipment | 3.5 |
| 5 | 5.42 | | | Furniture and utensils | 0.85 |
| | | | | Cooking equipment | To be separately approved |
| 10 | 10.54 | 25 | 13.175 | Furniture and equipment, stage lightings and fittings | 2.15 |
| 200 | 231 | 25 | 290 | — | — |
| 400 | 441 | 25 | 550 | — | — |
| | 1 600 | 40 | 3 200 | Furniture and equipment | 400 |
| | 1 400 | 40 | 2 800 | Furniture and equipment | 300 |
| | 250 | 35 | 440 | — | — |
| | | | | Books | 250 |
| | | | | Books | 300 |
| | | | | Teaching equipment | 500 |
| | | | | Vehicle | 1 300 |

### NOTES TO APPENDIX B

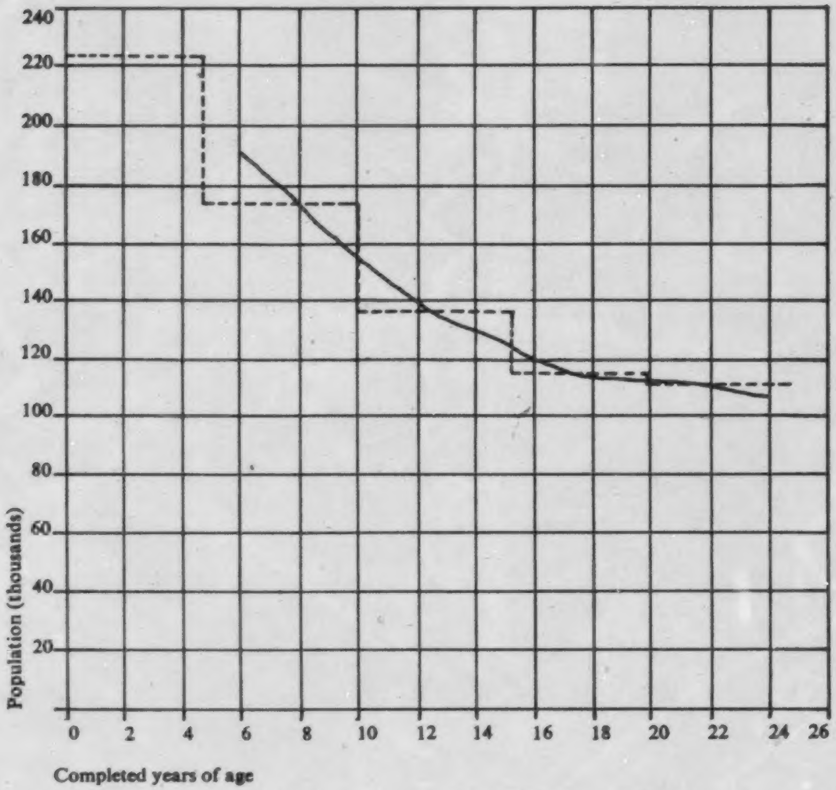
*Item*

1. Office. Head's, bursar's and general offices; lavatory and wash-basin for head. Furniture and equipment include typewriter, adding machine and filing cabinets.
2. Staff room. Includes one lavatory and wash-basin for every five teacher posts. Based on 25 sq. ft. floor area per teacher post plus 20 sq. ft. per lavatory/wash-basin unit.
3. Library. Bookshelves included in building costs; equipment includes card-index and filing cabinets. Grant for books based on £400 each per CSC and HSC stream, given when new stream begins.
4. Class-room for thirty-five. (a) Chalkboard and display boards built in; furniture consists of desks and chairs for students, table and chair for teacher, and moveable cupboard recommended, as built-in cupboards reduce floor space. (b) Should be built in blocks of four class-rooms, complete with stores, at beginning of new CSC stream, or two class-rooms at beginning of new TS stream.
5. Class-room for twenty-five. (a) For TTCs. (b) See item 4 (a). (c) Should be built in blocks of four class-rooms complete with stores, at beginning of new TTC stream at grade II level, or double stream at grade III level.
6. Class-room for twenty. (a) For HSC classes. (b) See item 4 (a). (c) Should be built in blocks of two or four class-rooms, complete with store.
7. Class-room stores. Ten per cent of total class-room area is allowed for class-room stores; includes built-in shelves where necessary.
8. Geography room. Includes storage space and a sink.
9. Art and craft room. Includes storage space and long trough sinks with six taps per sink. Scale: one per school; a second when third stream begins.
10. Laboratory. Each laboratory 1,150 sq. ft; preparation, balance and store-rooms a total of 20 per cent of total areas of laboratories. Chemistry laboratory: eighteen sinks, twenty twin points for Bunsen burners; Physics laboratory: ten sinks, ten twin points for Bunsen burners; Biology laboratory: ten sinks, ten twin points for Bunsen burners. Should be designed in groups of three laboratories, for physics, chemistry and biology, with gas installation serving all three. In interim stages, before a laboratory block is completed, some laboratories will have to be used for two subjects; even so, the initial grant for teaching equipment will be given complete each year, if all three subjects are taught.
11. Home economics combined practical room. Scale: girls' school, two per school; mixed school, one per school, second added when third-stream HSC offering home economics begins. This scale is based on the assumption that all the girls offer home economics.
12. Home economics model house. Scale: Girls' school, two per school; mixed school, one per school, second added when third-stream HSC offering HE begins. This scale is based on the assumption that all the girls offer home economics.
13. Home economics extra practical room. Scale: Girls' school, one in second year of double-stream school, or one in second year and one in third year of treble-stream school; mixed school, one in third year of double-stream school, or one in second year of treble-stream school. This scale is based on the assumption that all the girls offer home economics.
14. Workshop (woodwork). Consists of workshop 35 ft. × 18 ft. and two stores each 9 ft. × 10 ft.
15. WCs (day school). One WC for every twenty-five places up to one hundred, and one for every forty above one hundred. For boys, 1 ft. 10 in. of urinal should replace every other WC. One wash-basin to every WC.
16. Class-room WCs (boarding school). Half the scale of item 15.
17. Dormitory. Assuming that a proper water supply and sewage disposal are available, dormitories should be built complete with one WC for every ten places, 1 ft. 10 in. of urinal for every ten boy places, one wash-basin for every five places, one shower for every seven places. Storage should be 3 per cent of sleeping area. Dhobi washing sinks should be built adjacent to the ablutions at one basin for every five places. Furniture includes bed, mattress, pillow, blanket and locker for each place.
18. Dhobi drying area. Attached or very adjacent to the dormitory. An area containing one ironing 'peninsula' for every five places, enclosed with a low wall and open-work security measures, such as expanded metal.
19. Students' common room. The area allowed is too small for a common room per dormitory, unless the dormitory is inordinately large. There should therefore be a central common room of at least the size of a class-room. If common rooms are built larger than class-room size, they would be very useful for examination rooms.

*Item*

20. Sick bay. Based on four beds per one hundred places at 50 sq. ft. per bed, and a small dispensary, WC and ablutions.
21. Matron's quarter. Part of same building as sick bay.
22. Dining hall. As school expands, should be designed to permit of extension.
23. Kitchen. See item 22.
24. Assembly hall. No grant for an assembly hall will be considered before a school reaches 500 places capacity. Even then, it takes low priority in the allocation of funds from the ministry's over-all vote.
26. Head's house. Super area inclusive of garage and servants' quarter.
27. Teacher's/bursar's house. See item 26.
28. Subordinate staff housing. Apart from two cooks, one driver and one quartermaster, it is assumed that all other subordinate staff will live out.
34. Other initial teaching equipment. Such as tape-recorders, projectors, etc.
35. Vehicle. After the capital grant for a vehicle, a school is expected to depreciate it in its recurrent estimates.

N.B. Items 1 to 11, 13, 14, 17, 20 to 22, superficial area and costs include 6 ft. wide verandah. Items 2, 3, 19, 20, 22 and 23 should always be designed for a minimum of 280 places, and should later be expanded as the school grows. All costs exclusive of fees for architects.



| Age group | Total 1959 census (in thousands) | Average per year | Smoothed | |
|---|---|---|---|---|
| Under 1 | 244 | 224 | 5 | 188 |
| 1 to 4 | 876 | | 6 | 181 |
| 5 to 9 | 871 | 174 | 7 | 173 |
| 10 to 14 | 681 | 136 | 8 | 165 |
| 15 to 19 | 576 | 115 | 9 | 156 |
| 20 to 24 | 552 | 110 | 10 | 146 |
| | | | 11 | 138 |
| | | | 12 | 133 |
| | | | 13 | 128 |
| | | | 14 | 124 |
| | | | 15 | 120 |
| | | | 16 | 115 |
| | | | 17 | 113 |
| | | | 18 | 112 |
| | | | 19 | 111 |
| | | | 20 | 110 |
| | | | 21 | 109 |
| | | | 22 | 107 |
| | | | 23 | 108 |

APPENDIX C
Smoothed curve of population age groups (1959 census)

APPENDIX D Statistics forms for schools for 1966

Uganda Ministry of Education. Annual statistical return for the year 19—

1. Primary and junior secondary schools

| Mark X under correct category | | | | | | Leave blank |
|---|---|---|---|---|---|---|
| Type of school | | | | | | |
| Primary | | Junior secondary | | Homecraft | | |
| Foundation body | | | | | | |
| Local government | Church of Uganda | Roman Catholic | Moslem | Private | Other | |
| Sex of pupils | | | | | | |
| Boys | | Girls | | Mixed | | |
| District, division or municipality | | | County | | | |
| Name and postal address of school: | | | | | | |

| Class-room sizes | |
|---|---|
| Class-room | Area (sq. ft.) |
| A | |
| B | |
| C | |
| D | |
| E | |
| F | |
| G | |
| H | |
| I | |
| J | |
| K | |
| L | |
| M | |
| Number of teachers' houses | |

Number of enrolments

| Class | P.1 | | P.2 | | P.3 | | P.4 | | P.5 | | P.6 | | P.7/JS.1 | | JS.2 | | JS.3 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G |
| Age group | | | | | | | | | | | | | | | | | | | | |
| 5 and under | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | |
| 18 and over | | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | | | |

Number of repeaters

| Class | P.1 | | P.2 | | P.3 | | P.4 | | P.5 | | P.6 | | P.7/JS.1 | | JS.2 | | JS.3 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G |
| Age group | | | | | | | | | | | | | | | | | | | | |
| 5 and under | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | |
| 18 and over | | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | | | |

| Number of streams | P.1 | P.2 | P.3 | P.4 | P.5 | P.6 | P.7/JS.1 | JS.2 | JS.3 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

Number of enrolment

| | S.1/TT.1 streams | | | | | | S.2/TT.2 streams | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Admission | | Repeaters | | Total | | Forward | | Repeaters | | Transfers | | | | Total | |
| | | | | | | | | | | | In | | Out | | | |
| Age group | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G |
| 14 and under | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | |
| 23 and over | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | |
| Fall-out | | | | | | | | | | | | | | | | |
| Day fee paying | | | | | | | | | | | | | | | | |
| Day free places | | | | | | | | | | | | | | | | |
| Boarding | | | | | | | | | | | | | | | | |
| Boarding bursary | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | |
| African | | | | | | | | | | | | | | | | |
| Asian | | | | | | | | | | | | | | | | |
| European | | | | | | | | | | | | | | | | |
| West | | | | | | | | | | | | | | | | |
| Buganda | | | | | | | | | | | | | | | | |
| North | | | | | | | | | | | | | | | | |
| East | | | | | | | | | | | | | | | | |
| Outside Uganda | | | | | | | | | | | | | | | | |
| Streams | | | | | | | | | | | | | | | | |

Name of school or college

County

Region

APPENDIX D (cont.)

Uganda Ministry of Education. Annual statistical return for the year 19—

2. Senior secondary schools and grade II teacher-training colleges

Appendix D

| S.3/TT.3 streams | | | | | | | | | | S.4/TT.4 streams | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Forward | | Repeaters | | Transfers | | | | Total | | Forward | | Repeaters | | Transfers | | | | Total | |
| | | | | In | | Out | | | | | | | | In | | Out | | | |
| B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G |
| | | | | | | | | | | | | | | | | | | | |
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|---|---|---|---|---|---|
| Tick foundation body: | | | | | |
| Government | Local authority | Roman Catholic | Moslem | Church of Uganda | Other |

| | | |
|---|---|---|
| Tick sex of pupils: | | |
| Boys | Girls | Mixed |

| | S.5/TT. III (1) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Arts | | | | | | Science | | | | | | Mixed | | | | | |
| | Admission | | Repeaters | | Total | | Admission | | Repeaters | | Total | | Admission | | Repeaters | | Total | |
| Age group | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | |
| 14 and under | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | |
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| 21 | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | | |
| 23 and over | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | |
| Fall-out | | | | | | | | | | | | | | | | | | |
| Day fee paying | | | | | | | | | | | | | | | | | | |
| Day free places | | | | | | | | | | | | | | | | | | |
| Boarding | | | | | | | | | | | | | | | | | | |
| Boarding bursary | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | |
| African | | | | | | | | | | | | | | | | | | |
| Asian | | | | | | | | | | | | | | | | | | |
| European | | | | | | | | | | | | | | | | | | |
| West | | | | | | | | | | | | | | | | | | |
| Buganda | | | | | | | | | | | | | | | | | | |
| North | | | | | | | | | | | | | | | | | | |
| East | | | | | | | | | | | | | | | | | | |
| Outside Uganda | | | | | | | | | | | | | | | | | | |
| Streams | | | | | | | | | | | | | | | | | | |
| Name of school or college | | | | | | | | | | | | | | | | | | |
| County | | | | | | | | | | | | | | | | | | |
| Region | | | | | | | | | | | | | | | | | | |

APPENDIX D (cont.)
Uganda Ministry of Education. Annual statistical return for the year 19—
3. Senior secondary schools and grade III teacher-training colleges

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| S.6/TT.III (2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arts | | | | | | | | | | Science | | | | | | | | | | Mixed | | | | | | | | | |
| or- ard | | Repeaters | | Transfers | | | | Total | | Forward | | Repeaters | | Transfers | | | | Total | | Forward | | Repeaters | | Transfers | | | | Total | |
| | | | | In | | Out | | | | | | | | In | | Out | | | | | | | | In | | Out | | | |
| | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G | B | G |
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ck foundation body:

| | | | | | |
|---|---|---|---|---|---|
| overnment | Local authority | Roman Catholic | Moslem | Church of Uganda | Other |

ck sex of pupils:

| | | |
|---|---|---|
| oys | Girls | Mixed |

APPENDIX D (cont.)

**Uganda Ministry of Education**

**4. Annual statistical return for all schools**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A.<br>Group of school* | A | B | C | D | E | | |
| B.<br>Type of school* | Primary | Junior secondary | Senior secondary | Secondary modern | Rural trade | Home craft | Farm school |
| C.<br>District division or municipality and county | | | | County | | | |
| D.<br>Foundation body* | Local Government | Church of Uganda | Roman Catholic | Moslem | Private | Other | |
| E.<br>Sex of pupils* | Boys | Girls | Mixed | | | | |
| F.<br>Name of school | | | | Postal address | | | |
| Code of school (Leave blank) | A | B | C | D | E | F | |

## Appendix D

| | Teacher's name (1) | Registration or licence number (2) | Date of permanent certificate (3) | Sex (4) | Age (5) | Race (6) | Grade (7) | Terms of service (8) | Teacher's qualifications (9) | Academic qualifications (10) | Serial number of salary scale, etc. (11) | Annual basic salary (£) (12) | Annual allowances (£) (13) | Annual overseas addition (£) (14) | Date of posting to school (15) | Is grant paid for the salary or not (16) |
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Note: Every alternate line must be left blank. Read instructions attached carefully before filling in the form.

**APPENDIX E** Specimens of 1964 published statistics

1. Number of schools by category (aided schools only) 1956-64[1]

| As at 31 December | Group A | | | | | Groups B and C | | | | Groups D and E | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Primary | Junior secondary | Senior secondary | Teacher-training | Technical | Primary | Junior secondary | Senior secondary | Teacher-training | Primary | Junior secondary |
| 1956 | 1 876 | 96 | 17 | 37 | 56 | 100 | 13 | 4 | 1 | 10 | — |
| 1957 | 2 010 | 109 | 18 | 37 | 75 | 102 | 26 | 6 | 1 | 11 | — |
| 1958 | 2 118 | 154 | 19 | 34 | 94 | 102 | 31 | 7 | 1 | 12 | — |
| 1959 | 2 190 | 173 | 20 | 33 | 92 | 104 | 27 | 7 | 1 | 12 | — |
| 1960 | 2 249 | 222 | 22 | 34 | 92 | 93 | 29 | 7 | 1 | 12 | — |
| 1961 | 2 293 | 261 | 24 | 35 | 76 | 93 | 30 | 7 | 1 | 12 | — |
| 1962 | 2 352 | 339 | 28 | 35 | 49 | 83 | 38 | 7 | 1 | 12 | — |
| 1963 | 2 415 | 424 | 41* | 35* | 10* | 57 | 32 | —* | —* | 13 | 3 |
| 1964 | 2 353 | 480 | 41* | 32* | 7* | 58 | 33 | —* | —* | 11 | 4 |

1. See note opposite page

2. Pupils enrolled by category (aided schools only) 1956-64[2]

| As at 31 December | Group A | | | | | Groups B and C | | | | Groups D and E | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Primary | Junior secondary | Senior secondary | Teacher-training | Technical | Primary | Junior secondary | Senior secondary | Teacher-training | Primary | Junior secondary |
| 1956 | 265 765 | 9 141 | 2 410 | 3 987 | 3 338 | 13 505 | 3 327 | 846 | 65 | 999 | — |
| 1957 | 297 769 | 11 544 | 2 911 | 4 147 | 3 807 | 14 610 | 2 277 | 1 712 | 73 | 1 012 | — |
| 1958 | 317 879 | 14 301 | 3 153 | 4 057 | 4 513 | 14 823 | 3 051 | 1 846 | 83 | 1 083 | — |
| 1959 | 337 578 | 16 848 | 3 412 | 3 667 | 3 885 | 15 691 | 3 149 | 2 143 | 95 | 1 204 | — |
| 1960 | 345 834 | 18 122 | 3 815 | 3 182 | 4 348 | 16 013 | 3 219 | 2 642 | 97 | 1 166 | — |
| 1961 | 370 436 | 22 207 | 4 108 | 3 061 | 3 945 | 15 635 | 3 633 | 2 591 | 94 | 1 224 | — |
| 1962 | 387 966 | 25 942 | 4 580 | 3 372 | 2 858 | 15 613 | 4 294 | 3 246 | 99 | 1 180 | — |
| 1963 | 450 912 | 34 693 | 10 195* | 4 029* | 1 334* | 14 039 | 4 373 | —* | —* | 1 611 | 97 |
| 1964 | 466 287 | 38 670 | 12 652 | 4 076* | 1 370* | 14 273 | 4 554 | —* | —* | 1 910 | 173 |

2. See note opposite page

APPENDIX 3 (cont.)

### 3. Number of primary schools and streams by district and class

| District, division or municipality | Number of schools | Classes | | | | | |
|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 |
| Bowa | 74 | 75 | 76 | 73 | 72 | 59 | 54 |
| Mukono | 92 | 98 | 102 | 93 | 89 | 75 | 68 |
| Mengo | 116 | 134 | 134 | 125 | 128 | 110 | 102 |
| Mpigi | 81 | 94 | 96 | 83 | 80 | 66 | 57 |
| Mityana | 61 | 62 | 60 | 63 | 54 | 58 | 49 |
| Mubende | 48 | 51 | 50 | 42 | 39 | 38 | 36 |
| Masaka | 153 | 178 | 166 | 160 | 160 | 156 | 143 |
| Kampala | 20 | 40 | 41 | 40 | 41 | 40 | 37 |
| Acholi | 166 | 183 | 179 | 173 | 168 | 154 | 150 |
| Karamoja | 55 | 70 | 56 | 51 | 41 | 19 | 14 |
| Lango | 128 | 131 | 130 | 131 | 129 | 122 | 120 |
| Madi | 28 | 33 | 34 | 29 | 28 | 25 | 24 |
| West Nile | 164 | 178 | 170 | 167 | 163 | 137 | 131 |
| Bugisu | 111 | 114 | 117 | 98 | 96 | 91 | 89 |
| Bukedi | 151 | 156 | 161 | 154 | 148 | 138 | 133 |
| Busoga | 208 | 210 | 209 | 196 | 183 | 169 | 155 |
| Sebei | 20 | 21 | 19 | 14 | 13 | 14 | 13 |
| Teso | 166 | 177 | 178 | 161 | 160 | 138 | 130 |
| Jinja | 11 | 16 | 17 | 15 | 18 | 18 | 17 |
| Mbale | 7 | 10 | 11 | 11 | 10 | 12 | 10 |
| Tororo | 6 | 6 | 7 | 5 | 5 | 4 | 5 |
| Ankole | 177 | 191 | 193 | 171 | 148 | 122 | 103 |
| Bunyoro | 80 | 82 | 95 | 75 | 68 | 61 | 59 |
| Kigezi | 177 | 183 | 183 | 170 | 150 | 117 | 106 |
| Toro | 100 | 128 | 119 | 94 | 85 | 71 | 60 |
| Bwamba/Busongora | 22 | 29 | 23 | 23 | 19 | 16 | 16 |
| TOTAL | 2 422 | 2 650 | 2 626 | 2 417 | 2 295 | 2 030 | 1 881 |

NOTES

1. Group A denotes schools with a predominantly African enrolment; group B denotes those with a predominantly Asian enrolment; group C denotes those with a predominantly Goan enrolment; group D denotes those with a predominantly European enrolment; group E denotes those which are multi-racial.

   Senior secondary and technical schools and teacher-training colleges are now for all races, hence the figures marked * apply accordingly.

   There are also eighteen secondary modern schools, eight home-craft centres, seven junior farm schools and twenty-four rural trade schools (in 1964).
2. Senior secondary and technical schools and teacher-training colleges are now for all races, hence the figures marked * apply accordingly.

   There are 1,016 pupils in secondary modern schools, 343 pupils in home-craft centres, 262 students in junior farm schools and 868 students in rural trade schools.

APPENDIX E (cont.) 4. Total enrolment in primary schools by district and class

| Division, district or municipality | Class 1 | | Class 2 | | Class 3 | |
|---|---|---|---|---|---|---|
| | Boys | Girls | Boys | Girls | Boys | Girls |
| ***Buganda*** | | | | | | |
| **Bowa** | 1 323 | 1 262 | 1 225 | 1 227 | 1 207 | 1 185 |
| **Mukono** | 1 801 | 1 616 | 1 865 | 1 493 | 1 704 | 1 339 |
| **Mengo** | 2 695 | 2 640 | 2 635 | 2 368 | 2 426 | 2 310 |
| **Mpigi** | 1 847 | 1 550 | 1 723 | 1 477 | 1 478 | 1 197 |
| **Mityana** | 1 209 | 1 098 | 1 170 | 981 | 1 177 | 954 |
| **Mubende** | 937 | 785 | 760 | 688 | 651 | 474 |
| **Masaka** | 3 586 | 3 221 | 3 163 | 2 675 | 3 006 | 2 377 |
| **Kampala** | 806 | 764 | 828 | 748 | 751 | 722 |
| TOTAL | 14 204 | 12 936 | 13 369 | 11 657 | 12 400 | 10 588 |
| ***North*** | | | | | | |
| **Acholi** | 4 730 | 2 785 | 4 324 | 2 126 | 4 052 | 1 555 |
| **Karamoja** | 1 852 | 480 | 908 | 157 | 729 | 136 |
| **Lango** | 2 755 | 1 705 | 2 954 | 1 639 | 3 405 | 1 723 |
| **Madi** | 1 006 | 504 | 968 | 378 | 763 | 217 |
| **West-Nile** | 7 268 | 3 282 | 4 773 | 1 716 | 3 911 | 1 088 |
| TOTAL | 17 611 | 8 756 | 13 927 | 6 016 | 12 860 | 4 719 |
| ***East*** | | | | | | |
| **Bugisu** | 2 466 | 2 006 | 2 569 | 1 740 | 2 123 | 1 450 |
| **Bukedi** | 4 280 | 2 901 | 3 985 | 2 332 | 3 668 | 1 759 |
| **Busoga** | 4 184 | 3 268 | 3 986 | 2 960 | 3 924 | 2 728 |
| **Sebei** | 489 | 280 | 386 | 217 | 302 | 162 |
| **Teso** | 4 124 | 2 932 | 3 940 | 2 596 | 3 651 | 1 915 |
| **Jinja** | 323 | 285 | 332 | 325 | 296 | 274 |
| **Mbale** | 107 | 178 | 200 | 178 | 195 | 162 |
| **Tororo** | 137 | 110 | 156 | 121 | 107 | 95 |
| TOTAL | 16 200 | 11 960 | 15 554 | 10 469 | 14 266 | 8 535 |
| ***West*** | | | | | | |
| **Ankole** | 4 363 | 2 679 | 4 503 | 2 433 | 3 915 | 2 119 |
| **Bunyoro** | 2 119 | 1 686 | 1 993 | 1 444 | 1 379 | 990 |
| **Kigezi** | 4 688 | 2 932 | 5 071 | 2 792 | 4 267 | 2 108 |
| **Toro** | 2 935 | 2 063 | 2 552 | 1 682 | 1 973 | 1 131 |
| **Bwamba/Busongora** | 831 | 300 | 515 | 163 | 450 | 136 |
| TOTAL | 14 936 | 9 660 | 14 634 | 8 514 | 11 984 | 6 484 |
| TOTAL (Uganda) | 63 001 | 43 312 | 57 484 | 36 656 | 51 510 | 30 296 |

| Class 4 | | Class 5 | | Class 6 | | Total | | Grand total |
|---|---|---|---|---|---|---|---|---|
| Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls | |
| 1 313 | 1 050 | 1 145 | 863 | 991 | 661 | 7 204 | 6 248 | 13 452 |
| 1 680 | 1 296 | 1 511 | 1 010 | 1 265 | 757 | 9 826 | 7 511 | 17 337 |
| 2 427 | 2 283 | 2 155 | 2 033 | 2 004 | 1 636 | 14 342 | 13 270 | 27 612 |
| 1 405 | 1 104 | 1 285 | 851 | 1 222 | 692 | 8 960 | 6 871 | 15 831 |
| 1 074 | 851 | 1 048 | 747 | 951 | 567 | 6 629 | 5 198 | 11 827 |
| 674 | 439 | 568 | 393 | 590 | 350 | 4 180 | 3 194 | 7 329 |
| 3 057 | 2 355 | 3 032 | 2 043 | 2 696 | 1 694 | 18 540 | 14 365 | 32 905 |
| 756 | 704 | 750 | 724 | 701 | 653 | 4 592 | 4 315 | 8 907 |
| 12 386 | 10 102 | 11 494 | 8 664 | 10 420 | 7 010 | 74 273 | 60 927 | 135 200 |
| 3 514 | 1 255 | 3 299 | 1 030 | 4 031 | 1 061 | 23 950 | 9 812 | 33 762 |
| 526 | 71 | 310 | 48 | 293 | 36 | 4 618 | 928 | 5 546 |
| 3 365 | 1 162 | 3 193 | 935 | 3 654 | 943 | 19 326 | 8 107 | 27 433 |
| 570 | 153 | 510 | 115 | 586 | 93 | 4 403 | 1 460 | 5 863 |
| 3 088 | 789 | 2 730 | 680 | 2 904 | 623 | 24 674 | 8 178 | 32 852 |
| 11 063 | 3 430 | 10 042 | 2 808 | 11 468 | 2 756 | 76 971 | 28 485 | 105 456 |
| 2 162 | 1 326 | 2 236 | 1 090 | 2 380 | 1 020 | 13 936 | 8 632 | 22 568 |
| 3 595 | 1 516 | 3 336 | 1 237 | 3 656 | 1 107 | 22 520 | 10 852 | 33 372 |
| 3 731 | 2 274 | 3 652 | 1 862 | 3 702 | 1 470 | 23 179 | 14 562 | 37 741 |
| 318 | 104 | 374 | 93 | 417 | 65 | 2 286 | 911 | 3 197 |
| 3 578 | 1 649 | 3 207 | 1 322 | 3 510 | 1 150 | 22 010 | 11 564 | 33 574 |
| 350 | 303 | 340 | 289 | 327 | 248 | 1 968 | 1 724 | 3 692 |
| 180 | 149 | 205 | 198 | 165 | 152 | 1 142 | 1 017 | 2 159 |
| 102 | 86 | 100 | 58 | 102 | 64 | 704 | 534 | 1 238 |
| 14 016 | 7 407 | 13 450 | 6 149 | 14 259 | 5 276 | 87 745 | 49 796 | 137 541 |
| 3 514 | 1 585 | 2 913 | 1 204 | 2 349 | 887 | 21 557 | 10 907 | 32 464 |
| 1 102 | 740 | 903 | 608 | 926 | 500 | 8 422 | 5 968 | 14 390 |
| 3 820 | 1 718 | 2 993 | 1 263 | 2 617 | 1 010 | 23 456 | 11 823 | 35 279 |
| 1 681 | 907 | 1 373 | 680 | 1 074 | 496 | 11 588 | 6 959 | 18 547 |
| 363 | 71 | 310 | 70 | 322 | 62 | 2 791 | 802 | 3 593 |
| 10 480 | 5 021 | 8 492 | 3 825 | 7 288 | 2 955 | 67 814 | 36 459 | 104 273 |
| 47 945 | 25 960 | 43 478 | 21 446 | 43 435 | 17 997 | 306 803 | 175 667 | 482 470 |

APPENDIX E (cont.)

Total and average salaries of junior secondary teachers by district

| District | Salary (£) | Allowance (£) | Overseas addition (£) | Total (£) | Number of teachers | Average salary (£) |
|---|---|---|---|---|---|---|
| Bowa | 13 203 | 492 | — | 13 695 | 35 | 391 |
| Mukono | 30 778 | 879 | 501 | 32 158 | 74 | 434 |
| Mengo | 48 582 | 1 668 | — | 50 250 | 115 | 436 |
| Mpigi | 14 004 | 642 | — | 14 646 | 44 | 332 |
| Mityana | 8 340 | 423 | — | 8 763 | 24 | 365 |
| Mubende | 3 965 | 216 | — | 4 181 | 12 | 348 |
| Masaka | 41 210 | 1 713 | 510 | 43 433 | 104 | 417 |
| Acholi | 23 625 | 1 938 | — | 25 563 | 78 | 327 |
| Karamoja | 3 885 | 728 | — | 4 613 | 12 | 384 |
| Lango | 16 493 | 1 432 | — | 17 925 | 48 | 373 |
| Madi | 5 398 | 732 | — | 6 130 | 17 | 360 |
| West Nile | 22 227 | 994 | — | 23 221 | 73 | 318 |
| Bugisu | 26 564 | 1 889 | 942 | 29 395 | 82 | 358 |
| Bukedi | 33 995 | 2 624 | — | 36 619 | 107 | 342 |
| Busoga | 54 121 | 2 086 | 1 260 | 57 467 | 132 | 435 |
| Sebei | 2 212 | 142 | — | 2 354 | 9 | 261 |
| Teso | 45 426 | 2 272 | — | 47 698 | 123 | 387 |
| Ankole | 28 825 | 1 743 | — | 30 568 | 76 | 398 |
| Bunyoro | 16 664 | 636 | — | 17 300 | 56 | 308 |
| Kigezi | 27 275 | 1 132 | — | 28 407 | 90 | 315 |
| Toro | 24 253 | 775 | — | 25 028 | 63 | 397 |
| Bwamba/Busongora | 2 917 | 132 | 380 | 3 429 | 8 | 428 |
| Kampala | 90 037 | 630 | 2 217 | 92 884 | 113 | 821 |
| Jinja | 36 143 | 208 | — | 36 351 | 47 | 773 |
| Mbale | 22 036 | 396 | — | 22 432 | 36 | 623 |
| Tororo | 2 490 | 72 | — | 2 562 | 4 | 640 |
| Masindi | 3 244 | — | — | 3 244 | 4 | 811 |
| TOTAL | 647 912 | 26 594 | 5 810 | 680 316 | 1 586 | 428 |

APPENDIX E (cont.) 6. Senior secondary teachers by qualification

| Qualification | Male | Female | Total |
|---|---|---|---|
| *Approved graduate or equivalent* | | | |
| Expatriate | | | |
| Trained | 332 | 109 | 441 |
| Untrained | 37 | 23 | 60 |
| Local | | | |
| Trained | 25 | 7 | 32 |
| *Completed secondary-school course* | | | |
| Expatriate | | | |
| Trained | | | |
| Grade V | 29 | 22 | 51 |
| Senior domestic science | — | 9 | 9 |
| Senior technical | 2 | — | 2 |
| Untrained | 6 | 2 | 8 |
| Student teachers | 8 | 1 | 9 |
| Local | | | |
| Grade V | 23 | 4 | 27 |
| Senior domestic science | — | — | — |
| Senior technical | — | — | — |
| Grade IV | 3 | 2 | 5 |
| Grade III | 6 | 5 | 11 |
| Untrained | 7 | — | 7 |
| Student teachers | 5 | — | 5 |
| *Not completed secondary-school courses* | | | |
| Local | | | |
| Grade II | — | — | — |
| Grade II domestic science | — | 1 | 1 |
| Technical grade II | 7 | — | 7 |
| TOTAL | 490 | 185 | 675 |

APPENDIX E (cont.) 7. Number of primary teachers by qualification

| Grade | No. | Male | Female | Sex unknown |
|---|---|---|---|---|
| Honours graduates | 1 | 1 | — | — |
| Graduates | 1 | — | 1 | — |
| Grades I to III (Asian)[1] | — | — | — | — |
| Grades V or United Kingdom trained and grades IV and V (Asian)[1] | 49 | 19 | 29 | 1 |
| Makerere Old Style | 2 | — | 2 | — |
| Grade IV | 6 | 3 | 3 | — |
| Grade III and VI (Asian)[1] | 287 | 138 | 147 | 2 |
| Grade II, and VII and VIII (Asian)[1] | 6 853 | 5 012 | 1 841 | — |
| Grade I | 5 029 | 3 682 | 1 329 | 18 |
| Grade Ic[2] | 86 | 77 | 9 | — |
| K or S teacher[2] | 239 | 32 | 203 | 4 |
| Student teacher | 12 | 9 | 3 | — |
| Other unqualified primary teacher | 562 | 411 | 141 | 10 |
| TOTAL | 13 127 | 9 384 | 3 708 | 35 |
| Grade unknown | 429 | 246 | 177 | 6 |
| GRAND TOTAL | 13 556[3] | 9 630 | 3 885 | 41 |

1. There are still some Asian teachers in service who retain old forms of grading.
2. Grade Ic is the original form of the grade I teacher, K and S teachers are sub-grade I trained to meet special situations.
3. Of the total 13,556 primary teachers, 2 were approved graduates or the equivalent, 411 had completed a secondary-school course, 12,027 had not completed a secondary-school course and the background of the remaining 1,116 was unknown.

   Of the 12,440 teachers whose background was known, 11,906 were trained and 534 untrained. There were eighteen expatriate teachers, all grade V.

   Seventy grade III teachers (fifty-one male, nineteen female) had not completed a secondary-school course. Sixty-five grade II teachers (fifty male, fifteen female) had completed a secondary-school course.

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[1] This is undertaken at Kyambogo.

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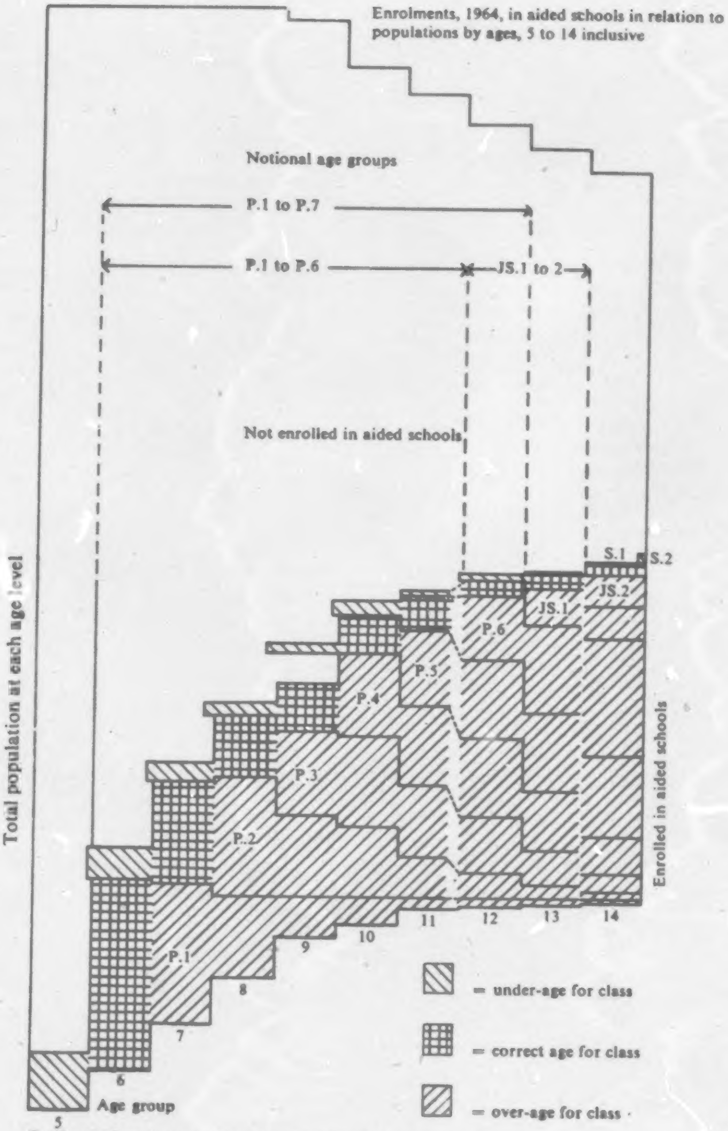


Outline encloses total estimated population for each age.
Shaded areas denote numbers enrolled in each class level. (JS and S contain all types of school and college.)
Unshaded areas denote numbers not enrolled in aided schools.

APPENDIX G Age structure in primary and junior secondary schools, 1964

## APPENDIX H Teacher wastage data

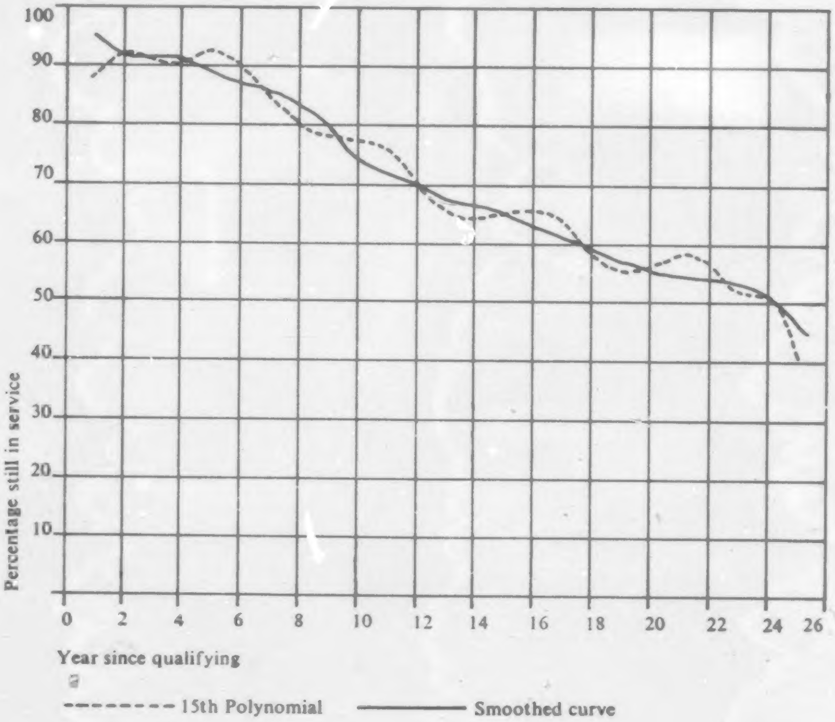
### 1. Teacher wastage, 1964 (grade II men)

| Year of qualification | Year of service 1964 | No. in service | Original registration | Upgraded | Remainder | Percentage in service |
|---|---|---|---|---|---|---|
| 1939 | 25 | 26 | 49 | 5 | 44 | 59 |
| 1940 | 24 | 18 | 43 | 6 | 37 | 49 |
| 1941 | 23 | 33 | 73 | 10 | 63 | 52 |
| 1942 | 22 | 51 | 96 | 13 | 83 | 61 |
| 1943 | 21 | 38 | 63 | 9 | 54 | 70 |
| 1944 | 20 | 34 | 76 | 8 | 68 | 50 |
| 1945 | 19 | 26 | 47 | 10 | 37 | 70 |
| 1946 | 18 | 37 | 67 | 14 | 53 | 70 |
| 1947 | 17 | 23 | 54 | 17 | 37 | 62 |
| 1948 | 16 | 30 | 72 | 15 | 57 | 53 |
| 1949 | 15 | 38 | 78 | 23 | 55 | 69 |
| 1950 | 14 | 41 | 79 | 27 | 52 | 79 |
| 1951 | 13 | 50 | 98 | 35 | 63 | 79 |
| 1952 | 12 | 93 | 151 | 33 | 118 | 79 |
| 1953 | 11 | 166 | 259 | 38 | 221 | 75 |
| 1954 | 10 | 175 | 224 | 25 | 199 | 88 |
| 1955 | 9 | 167 | 215 | 18 | 197 | 85 |
| 1956 | 8 | 546 | 610 | 11 | 599 | 91 |
| 1957 | 7 | 554 | 620 | 3 | 617 | 90 |
| 1958 | 6 | 639 | 677 | 1 | 676 | 95 |
| 1959 | 5 | 573 | 601 | 2 | 599 | 96 |
| 1960 | 4 | 573 | 592 | — | 592 | 97 |
| 1961 | 3 | 272 | 284 | — | 284 | 96 |
| 1962 | 2 | 297 | 307 | — | 307 | 97 |
| 1963(?) | 1 | 545 | 615 | — | 615 | 89 |
|  |  | 5 045 | 6 050 | 323 | 5 727 | 88 |

APPENDIX H (cont.) 2. Teacher wastage. Curve data (all grade I and II teachers)

| Years since qualification | Percentage still in service | | |
|---|---|---|---|
| | Original data | 15th polynomial curve | Smoothed curve |
| 1 | 88.30 | 88.32 | 96 |
| 2 | 93.62 | 93.44 | 93 |
| 3 | 91.82 | 92.27 | 92 |
| 4 | 91.27 | 90.95 | 91 |
| 5 | 92.27 | 91.58 | 89.5 |
| 6 | 88.25 | 89.64 | 88 |
| 7 | 85.37 | 84.95 | 86 |
| 8 | 81.65 | 80.72 | 84 |
| 9 | 76.84 | 78.53 | 80 |
| 10 | 79.71 | 77.05 | 76 |
| 11 | 72.99 | 74.32 | 73 |
| 12 | 67.28 | 70.19 | 70 |
| 13 | 69.17 | 66.46 | 67.5 |
| 14 | 66.75 | 64.86 | 66 |
| 15 | 64.46 | 65.15 | 65 |
| 16 | 61.63 | 65.09 | 63.5 |
| 17 | 62.99 | 62.69 | 61.5 |
| 18 | 62.29 | 58.52 | 59 |
| 19 | 55.42 | 55.64 | 57.5 |
| 20 | 53.03 | 56.46 | 56.5 |
| 21 | 59.79 | 58.96 | 56 |
| 22 | 60.00 | 57.56 | 55 |
| 23 | 49.29 | 51.53 | 53.5 |
| 24 | 51.34 | 50.57 | 51 |
| 25 | 40.58 | 40.68 | 45 |

APPENDIX H (cont.) 3. Teacher wastage (grades I and II)



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APPENDIX I Estimates of public expenditure by kingdoms, local administrations and urban authorities on education, 1964

| Area | Primary and junior secondary |  |  |  |  |  | Vocational |  |  |  |  | Secondary level |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | Administration (£) | School running (£) | Miscellaneous (£) | Total cost (£) | Roll | Cost per pupil (£) | School running (£) | Roll | Cost per pupil (£) | Scholarships and bursaries (£) | Capital. Primary and junior secondary (£) | Recurrent (£) | Capital (£) | Miscellaneous other (£) |
| Busoga | 15 406 | 336 742 | 8 425 | 360 573 | 41 225 | 8.7 | 4 448 | 92 | 48.3 | 25 345 | 132 380 |  | 18 400 |  |
| Bukedi | 10 780 | 197 254 | 750 | 208 784 | 36 024 | 5.8 | 2 787 | 82 | 34.0 | 8 800 | 6 850 |  |  |  |
| Bugisu | 7 159 | 149 638 | 525 | 157 322 | 23 945 | 6.6 | 2 885 | 98 | 29.4 | 9 100 | 10 200 |  |  |  |
| Sebei | 1 906 | 22 461 | 135 | 24 502 | 3 470 | 7.1 | – | – | – | 1 405 | 40 300 |  |  |  |
| Teso, including Soroti | 12 665 | 233 664 | 30 | 246 359 | 35 796 | 6.9 | 12 060 | 309 | 39.0 | 16 542 | 71 800 |  |  |  |
| Karamoja, including Moroto | 6 258 | 87 565 | 596 | 94 419 | 5 844 | 16.2 | (2 864) | – | – | 1 500 | 67 000 |  |  |  |
| Lango, including Lira | 7 079 | 163 812 | 1 350 | 172 241 | 28 861 | 6.0 | 7 808 | 89 | 87.7 | 21 200 | 10 000 |  |  |  |
| Acholi, including Kitgum | 3 987 | 158 473 | 175 | 162 635 | 35 721 | 4.6 | 2 054 | 85 | 24.2 | 12 500 | 7 000 |  |  |  |
| Madi | 1 861 | 37 180 | 315 | 39 356 | 6 451 | 6.1 | 1 416 | 38 | 37.3 | 2 000 | 1 450 |  |  |  |
| West Nile | 10 629 | 170 939 | – | 181 568 | 33 074 | 5.5 | 6 026 | 69 | 87.3 | 7 500 | 3 000 |  |  |  |
| Bunyoro, including Hoima and Masindi | 7 734 | 108 029 | – | 115 763 | 15 628 | 7.4 | 4 250 | 59 | 61.6 | 10 000 | 5 000 |  |  |  |
| Tooro (including Fort Portal but not Bwamba/Busongora) | 11 087 | 149 628 | 760 | 161 475 | 19 895 | 8.1 | – | – | – | 11 100 | 5 780 |  |  |  |
| Tooro (Bwamba/Busongora) |  |  |  | 33 779 | 3 777 | 8.9 |  |  |  |  |  |  |  |  |
| Kigezi, including Kabale | 8 940 | 213 842 | 50 | 222 832 | 38 239 | 5.8 | 6 989 | 154 | 45.4 | 13 500 | — |  |  |  |
| Ankole, including Mbarara | 9 956 | 218 939 | 3 313 | 232 208 | 34 109 | 6.8 | 9 518 | 87 | 109.4 | 15 000 | 17 422 |  |  |  |
| Buganda | 44 083 | 794 437 | 3 770 | 842 290 | 147 541 | 5.7 | 11 650 | 213 | 54.7 | 102 066 | 30 838 | 481 843 | 10 500 | 1 225 |
| TOTAL (Rural) |  |  |  | 3 256 106 | 509 600 | 6.4 | 71 891 | 1 375 | 52.3 |  |  |  |  |  |
| Kampala | 7 828 | 243 477 | – | 251 305 | 11 419 | 22.0 |  |  |  |  |  |  |  |  |
| Jinja | 4 483 | 107 683 | – | 112 166 | 4 671 | 24.0 |  |  |  |  |  |  |  |  |
| Mbale | 2 580 | 64 505 | – | 67 085 | 2 956 | 22.7 |  |  |  |  |  |  |  |  |
| TOTAL (Urban) |  |  |  | 430 556 | 19 046 | 22.6 |  |  |  |  |  |  |  |  |
| TOTAL |  |  |  | 3 686 662 | 528 646 | 7.0 |  |  |  |  |  |  |  |  |

## APPENDIX J *Per capita* costs of the different sectors of education, 1963-64

### SECONDARY EDUCATION

*Period 1963-64*

Capitation grants

| | Secondary 1-4 | | Secondary 5-6 | | Secondary modern |
|---|---|---|---|---|---|
| | Boarding | Day | Boarding | Day | Boarding |
| Enrolments, 1963 | 3 444 | 3 517 | 155 | 261 | 481 |
| Enrolments, 1964[1] | 4 422 | 4 299 | 336 | 324 | 547 |
| Capitation grant rates | £22.5 | £5 | £40 | £20 | £10 |
| Capitation costs, 1963 | £77,490 | £17,585 | £6,200 | £5,220 | £4,810 |
| Capitation costs, 1964 | £96,727 | £22,110 | £12,960 | £6,720 | £5,470 |

[1] In 1964, 230 of the day pupils were accommodated in hostels.

The capitation costs were £111,305 for 1963 and £143,987 for 1964, giving a total of £255,292 for the two years, the average yearly cost thus being £127,646. The cost per hostel student being £17.5 per annum, the total for the 230 students accommodated over six months was £2,013, giving a grand total of £129,659.

Total enrolments for secondary 1-6 were 7,377 for 1963 and 9,381 for 1964, an average of 8,379. Block grants of £4 per place were made totalling £33,516 (£4 × 8,379).

The total expenditure on secondary education was £638,378. If the capitation grants of £129,659 and the block grants of £33,516 are deducted then there remains £475,203 for salaries and allowances of teachers.

About thirty under-qualified teachers, out of 730, in secondary modern schools would pull the over-all average down. This would be negligible and can therefore be ignored. Secondary modern costs per pupil for teachers are therefore included. The secondary modern enrolment for 1963 was 481, that for 1964 was 542, a yearly average of 514. Adding this to the earlier figure of 8,379 gives a total secondary enrolment of 8,893.

The average cost per pupil of teachers, including leave, is therefore £475,203 divided by 8,893, that is £53.5. This figure is grossed up to 140 per cent for gratuities and fringe benefits for expatriate teachers. Hence the average cost per pupil of teachers is £74.9.

If the figure for secondary modern, £5,140, is deducted from the total capitation allowances of £129,659 then £124,519 remains. Dividing this by the average enrolment for ordinary secondary pupils (8,379) gives £14.8, the average capitation allowance per ordinary secondary pupil.

The total cost per annum per ordinary secondary pupil is therefore: teacher element, £74.9; plus capitation allowance, £14.8; plus block grant, £4.0; that is £93.7. If £25 boarding and £17 day fees are added to this amount then the over-all totals for boarding and day pupils are £118.7 and £110.7 respectively.

*Change in the structure of the secondary-school teaching force, 1964-71*

Because there will be a higher proportion of Ugandan teachers in secondary schools in 1971 than in 1964, the figures above are affected in 1971 cost estimations. Thus at 1963-64 costs the position in 1971, if the working party's senior secondary enrolment targets are accepted, will be as follows.

The production of grade V and graduate (B.Ed. and Dip. Ed.) teachers is expected to be:

| Year | Grade V | Graduate |
|---|---|---|
| 1964 | 13 | — |
| 1965 | 14 | — |
| 1966 | — | 24 |
| 1967 | 120 | 24 |
| 1968 | 165 | 39 |
| 1969 | 165 | 45 |
| 1970 | 165 | 51 |
| | 642 | 183 |

With, say, 600 grade V and 170 graduate teachers still in service in 1971, i.e., a net addition of Ugandans to secondary teaching posts of 770.

The total enrolment in secondary 1-4 in 1971 will be 6,205 (90 per cent of 6,895) in S.4, 6,464 (93.3 per cent of 7,035) in S.3, 6,938 (96.7 per cent of 7,175) in S.2 and 7,350 (100 per cent of 7,350) in S.1; a grand total of 27,057.

At thirteen teachers to eight classes the ratio is 21.5 students per teacher (establishment): therefore, in the same ratio 1,258 teachers will be required for these 27,057 students.

The total enrolment in secondary 5-6 in 1971 will be 1,558 (95 per cent of 1,640) in S.5 and 1,640 (100 per cent of 1,640) in S.6, a total of 3,198.

If there are thirty students per class the teacher-student ratio will be 20:1, and therefore 160 teachers will be required for S.5-6.

There will be sixty-eight schools and therefore sixty-eight headmasters.

Thus the total teacher requirements in secondary schools in 1971 will be: 1,258 (for S.1-4), 160 (for S.5-6) and 68 headmasters, giving an over-all total of 1,486 of whom 770 will be Ugandans, leaving 716 expatriates.

A factor of 140 per cent of his salary is applied to the expatriate in respect of gratuities and fringe benefits, but only 100 per cent is applied to the Ugandan as the Uganda Teaching Service pensions are treated as a real figure for the year.

The average of 716 at 140 per cent, i.e., 100,240, and 770 at 100 per cent, i.e., 77,000 is the total 177,240. Dividing this by 1,486, the total teacher requirements, gives 119 per cent.

Applying this 119 per cent to £53.5 (average cost per pupil for teachers, see above) gives £63.7. This is the over-all cost of teacher per pupil. To this figure of £63.7 is added, per student, £14.8 capitation allowance and £4.0 block grant giving a figure of £82.5, to which is added £21.0 fees, giving a final total of £103.5. This is the grand total cost per student of secondary education in 1963-64 with 1971 teacher structure. It, of course, assumes that the percentage distribution of boarding and day pupils in 1971 will be the same as in 1964.

On the assumption that in 1971 the ratio of boarding to day pupils will be 7 : 3 then both the capitation and fee elements are affected. Taking the S.5-6 and the S.1-4 boarding/day capitation grant differentials (see above) of 1963-64 and breaking down the S.1-4 and S.5-6 enrolments in 1971 on the basis of 7 : 3 boarding to day, then per student capitation grants will be £107 for S.1-4 and £123 for S.5-6.

Breaking down the fee element (as above) will make *per capita* fees in 1971 equal to £22.

The costs breakdown in 1971 for secondary schools, at 1963-64 costs, will be:

Secondary 1-4: teacher element, £63.70; capitation element, £17.25; block grant, £4.0; fees, £22.0; a total of £106.95.

Secondary 5-6: teacher element, £63.70; capitation element, £33.37; block grant, £4.0; fees, £22.0; a total of £123.07.

### TECHNICAL EDUCATION

The *per capita* costs of running technical education in 1963-64 are based on analysis of three schools: Elgon, Lira and Kichwamba.
The total enrolments in 1963 and 1964 were

| School | 1963 | 1964 |
|---|---|---|
| Elgon | 144 | 152 |
| Lira | 154 | 161 |
| Kichwamba | 130 | 193 |
| | 428 | 506 |

an average of 467.

Grants were made by the ministry towards the Uganda Teaching Service salaries and allowances for courses, and towards capitation allowances to a total of £41,375, and salaries of civil service teachers were grossed up to 140 per cent at a cost of £12,362, making an over-all total of £53,737.

The annual cost per pupil for ministry payments for 1963-64 is, therefore, £53,737 divided by the average enrolment of 467, that is £116. Adding to this figure the fees of £22.5 gives a final total of £137.5.

### TEACHER TRAINING GRADE III

Enrolment was 367 in 1963 and 392 in 1964, an average of 380.

Salaries and allowances were as follows: designated officers, £18,328; Asian expatriates, £10,229; Uganda Teaching Service, £20,876.

Pensions, gratuities, leave passages, etc., make it necessary to gross up the figures for designated officers and Asian expatriates to 140 per cent. Therefore the total salaries and allowances figure is £39,979.8 (say £39,980) plus £20,876, that is £60,856.

Dividing £60,856 by 380 (average enrolment) gives £160, the tutor cost per place.

Other costs amounted to £52,186, an average of £137.3 per place, hence the total cost per place of grade III teacher training is: teacher element, £160; plus other element, £137.3; a final figure of £297.3.

### TEACHER TRAINING GRADE II

Enrolment was 2,578 in 1963 and 2,673 in 1964, an average of 2,625.

Salaries and allowances were as follows: designated officers and Asian expatriates, £33,936; Uganda Teaching Service, £113,677. Grossing up the amount for designated officers, etc., to 140 per cent to include pensions, gratuities, leave passages, etc., gives £47,510.4 (say £47,510). Therefore the total figure for salaries and allowances is £47,510 plus £113,677, that is £161,187.

Dividing £161,187 by 2,625 (average enrolment) gives £61.4, the tutor cost per place.

Other costs amounted to £101,793, an average of £38.8 per place.

Hence the total cost per place of grade II teacher training is as follows: teacher element, £61.4; plus other element, £38.8; that is £110.2. Adding £10.0 for fees gives a final figure of £120.2.

APPENDIX K Class progression in secondary schools, 1964-66

| School | 1964 | | | | | | |
|---|---|---|---|---|---|---|---|
| | I | II | III | IV | V | VI | Total |
| *Grant-aided schools* | | | | | | | |
| Aga Khan | 4 | 2 | 2 | 2 | 2 | 2 | 14 |
| Butobere | 2 | 2 | 1 | 1 | – | – | 6 |
| Comboni College | 1 | 1 | 1 | 1 | – | – | 4 |
| Jinja Senior Secondary School | 6+4 | 6 | 6 | 6 | – | – | 28 |
| Karamoja Senior Secondary School | – | – | – | – | – | – | – |
| Kiira College | 2 | 1 | 1 | – | – | – | 4 |
| Kitante Hill School | 3 | 2 | 2 | 2 | – | – | 9 |
| Kololo Senior Secondary School | 6+6 | 6 | 6 | 6 | 2 | 1 | 33 |
| Layibi Senior Secondary School | 2 | 2 | 1 | – | – | – | 5 |
| Lango College | 2 | 2 | 1 | 1 | – | – | 6 |
| Makerere College School | 2 | 1 | 1 | 1 | 3 | 3 | 11 |
| Masindi Senior Secondary School | 3 | 2 | 1 | 1 | – | – | 7 |
| Manjasi High School | 2 | 2 | – | – | – | – | 4 |
| Mbale Senior Secondary School | 4+4 | 4 | 4 | 5 | 2 | 2 | 25 |
| Mbarara High School | 3 | 1 | – | – | – | – | 4 |
| Mbarara Girls' School | 2 | 2 | 1 | 1 | – | – | 6 |
| Mvara Senior Secondary School | 1 | 1 | 1 | 1 | – | – | 4 |
| Busoga College, Mwiri | 2 | 2 | 2 | 2 | 2 | – | 10 |
| Nabumali High School | 3 | 3 | 3 | 2 | 2 | – | 13 |
| Ntare Senior Secondary School | 2 | 2 | 2 | 2 | 2 | 2 | 12 |
| Nyakasura Senior Secondary School | 3 | 2 | 2 | 2 | 2 | 2 | 13 |
| St. Aloysius', Nyapea | 2 | 2 | 2 | 2 | – | – | 8 |
| Old Kampala Senior Secondary School | 4+8 | 6 | 6 | 6 | 2 | 1 | 33 |
| Ombaci | 2 | 2 | 1 | – | – | – | 5 |
| Sacred Heart School, Gulu | 2 | 2 | 1 | 1 | – | – | 6 |
| St. Leo's, Fort Portal | 2 | 2 | 2 | 2 | – | – | 8 |
| Sir Samuel Baker School | 2 | 2 | 2 | 2 | 2 | 2 | 12 |
| Soroti Senior Secondary School | 2 | 2 | 2 | 1 | – | – | 7 |
| Teso College, Aloet | 4 | 4 | 2 | 2 | 2 | 1 | 15 |
| St. Peter's College, Tororo | 3 | 3 | 3 | 2 | – | – | 11 |
| Tororo Girls' Senior Secondary School | – | – | – | – | – | – | – |
| Buganda | | | | | | | |
| King's College, Budo | 3 | 3 | 3 | 2 | 2 | 2 | 15 |
| Gayaza High School | 2 | 2 | 2 | 2 | 2 | 1 | 11 |
| Kalisizo Girls' School | 1 | 1 | 1 | 1 | – | – | 4 |
| Kibuli Senior Secondary School | 2 | 2 | 1 | 1 | – | – | 6 |
| St. Mary's College, Kisubi | 3 | 3 | 3 | 3 | 2 | 2 | 16 |
| St. Henry's College, Kitovu | 2 | 2 | 2 | 1 | – | – | 7 |
| Lubiri Senior Secondary School | 3 | 3 | 2 | 2 | – | – | 10 |
| Masaka Senior Secondary School | 2 | 2 | 2 | 2 | – | – | 8 |
| Bishop's School, Mukono | 1 | 2 | 2 | 1 | – | – | 6 |
| Trinity College, Nabbingo | 3 | 2 | 2 | 2 | 2 | 1 | 12 |
| Mt. St. Mary's, Namagunga | 2 | 2 | 2 | 1 | 2 | 2 | 11 |
| Namilyango College | 2 | 2 | 2 | 2 | 2 | 2 | 12 |
| TOTAL | 126 | 97 | 83 | 74 | 35 | 26 | 441 |

| 1965 | | | | | | | 1966 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I | II | III | IV | V | VI | Total | I | II | III | IV | V | VI | Total |
| 4+2 | 4 | 2 | 2 | 2 | 2 | 18 | 4+2 | 4+2 | 4 | 2 | 2 | 2 | 22 |
| 2 | 2 | 2 | 1 | – | – | 7 | 2 | 2 | 2 | 2 | – | – | 8 |
| 1 | 1 | 1 | 1 | – | – | 4 | 2 | 1 | 1 | 1 | – | – | 5 |
| 6+5 | 6+4 | 6 | 6 | – | – | 33 | 6+6 | 6+5 | 6+4 | 6 | – | – | 39 |
| 1 | – | – | – | – | – | 1 | 1 | 1 | – | – | – | – | 2 |
| 2 | 2 | 1 | 1 | – | – | 6 | 2 | 2 | 2 | 1 | – | – | 7 |
| 3+3 | 3 | 2 | 2 | – | – | 13 | 3+3 | 3+3 | 3 | 2 | – | – | 17 |
| 6+6 | 6+6 | 6 | 6 | 2 | 2 | 40 | 6+6 | 6+5 | 6+6 | 6 | 2 | 2 | 46 |
| 2 | 2 | 2 | 1 | – | – | 7 | 2 | 2 | 2 | 2 | – | – | 8 |
| 2 | 2 | 2 | 1 | – | – | 7 | 2 | 2 | 2 | 2 | – | – | 8 |
| 2 | 2 | 1 | 1 | 3 | 3 | 12 | 2 | 2 | 2 | 1 | 3 | 3 | 13 |
| 3 | 3 | 2 | 1 | – | – | 9 | 3 | 3 | 3 | 2 | – | – | 11 |
| 2 | 2 | 2 | – | – | – | 6 | 2 | 2 | 2 | 2 | – | – | 8 |
| 4+4 | 4+4 | 4 | 4 | 2 | 2 | 28 | 4+4 | 4+4 | 4+4 | 4 | 2 | 2 | 32 |
| 3 | 3 | 1 | – | – | – | 7 | 3 | 3 | 3 | 1 | – | – | 10 |
| 2 | 2 | 2 | 1 | – | – | 7 | 2 | 2 | 2 | 2 | – | – | 8 |
| 1 | 1 | 1 | 1 | – | – | 4 | 1 | 1 | 1 | 1 | – | – | 4 |
| 2 | 2 | 2 | 2 | 2 | 2 | 12 | 2 | 2 | 2 | 2 | 2 | 2 | 12 |
| 3 | 3 | 3 | 3 | 2 | 2 | 16 | 3 | 3 | 3 | 3 | 2 | 2 | 16 |
| 3 | 2 | 2 | 2 | 2 | 2 | 13 | 3 | 3 | 2 | 2 | 2 | 2 | 14 |
| 3 | 3 | 2 | 2 | 2 | 2 | 14 | 3 | 3 | 3 | 2 | 2 | 2 | 15 |
| 2 | 2 | 2 | 2 | – | – | 8 | 2 | 2 | 2 | 2 | – | – | 8 |
| 6+6 | 6+6 | 6 | 6 | 2 | 2 | 40 | 6+6 | 6+6 | 6+6 | 6 | 2 | 2 | 46 |
| 2 | 2 | 2 | 1 | – | – | 7 | 2 | 2 | 2 | 2 | – | – | 8 |
| 2 | 2 | 2 | 1 | – | – | 7 | 2 | 2 | 2 | 2 | – | – | 8 |
| 2 | 2 | 2 | 2 | – | – | 8 | 2 | 2 | 2 | 2 | – | – | 8 |
| 2 | 2 | 2 | 2 | 2 | 2 | 12 | 2 | 2 | 2 | 2 | 2 | 2 | 12 |
| 2 | 2 | 2 | 2 | – | – | 8 | 2 | 2 | 2 | 2 | – | – | 8 |
| 4 | 4 | 4 | 2 | 2 | 2 | 18 | 4 | 4 | 4 | 4 | 2 | 2 | 20 |
| 3 | 3 | 3 | 3 | – | – | 12 | 3 | 3 | 3 | 3 | 2 | – | 14 |
| 3 | – | – | – | – | – | 3 | 3 | 3 | – | – | – | – | 6 |
| 3 | 3 | 3 | 3 | 2 | 2 | 16 | 3 | 3 | 3 | 3 | 2 | 2 | 16 |
| 2 | 2 | 2 | 2 | 2 | 2 | 12 | 2 | 2 | 2 | 2 | 2 | 2 | 12 |
| 1 | 1 | 1 | 1 | – | – | 4 | 1 | 1 | 1 | 1 | – | – | 4 |
| 2 | 2 | 2 | 1 | – | – | 7 | 2 | 2 | 2 | 2 | 2 | – | 10 |
| 3 | 3 | 3 | 3 | 2 | 2 | 16 | 3 | 3 | 3 | 3 | 2 | 2 | 16 |
| 2 | 2 | 2 | 2 | – | – | 8 | 2 | 2 | 2 | 2 | – | – | 8 |
| 3 | 3 | 3 | 2 | – | – | 11 | 3 | 3 | 3 | 3 | – | – | 12 |
| 2 | 2 | 2 | 2 | – | – | 8 | 2 | 2 | 2 | 2 | – | – | 8 |
| 2 | 1 | 2 | 2 | – | – | 7 | 2 | 2 | 1 | 2 | – | – | 7 |
| 3 | 3 | 2 | 2 | 2 | 2 | 14 | 3 | 3 | 3 | 2 | 2 | 2 | 15 |
| 2 | 2 | 2 | 2 | 2 | 2 | 12 | 2 | 2 | 2 | 2 | 2 | 2 | 12 |
| 2 | 2 | 2 | 2 | 2 | 2 | 12 | 2 | 2 | 2 | 2 | 2 | 2 | 12 |
| 138 | 126 | 97 | 83 | 35 | 35 | 514 | 140 | 138 | 126 | 97 | 39 | 35 | 575 |

APPENDIX K Class progression in secondary schools, 1964-66 *(cont.)*

| School | 1964 | | | | | | |
|---|---|---|---|---|---|---|---|
| | I | II | III | IV | V | VI | Total |
| *New Senior Secondary Schools* | | | | | Unaided year | | |
| Aga Khan, Masaka | – | – | – | – | – | – | – |
| Bukumi Senior Secondary School | – | – | – | – | – | – | – |
| Bweranyangi | – | – | – | – | – | – | – |
| Dr. Obote College | 2 | 1 | – | – | – | – | 3 |
| Duhaga | – | – | – | – | – | – | – |
| Gulu High School | 1 | 1 | – | – | – | – | 2 |
| Iganga Secondary School | – | – | – | – | – | – | – |
| Jinja College | – | – | – | – | – | – | – |
| Kabale Senior Secondary School | – | – | – | – | – | – | – |
| Kachonga | – | – | – | – | – | – | – |
| Kako | 1 | 1 | – | – | – | – | 2 |
| Kinyasano | – | – | – | – | – | – | – |
| Kitunga | – | – | – | – | – | – | – |
| Koboko | – | – | – | – | – | – | – |
| Kyebambe | – | – | – | – | – | – | – |
| Masaba | 1 | – | – | – | – | – | 1 |
| Mengo | 1 | 1 | – | – | – | – | 2 |
| Mutolere | – | – | – | – | – | – | – |
| Nabisunsa | 1 | – | – | – | – | – | 1 |
| Ndejje | 1 | 1 | – | – | – | – | 2 |
| Ngora | – | – | – | – | – | – | – |
| Nkoma | – | – | – | – | – | – | – |
| Sebei | – | – | – | – | – | – | – |
| TOTAL | 8 | 5 | – | – | – | – | 13 |
| GRAND TOTAL | 134 | 102 | 83 | 74 | 35 | 26 | 454 |

1. One class repeating.
2. In addition, there were ten new senior secondary schools which commenced in 1966, each with two classes at grade I, giving an over-all total of 204 classes at grade I and a grand total of 700 classes.

| 1965 | | | | | | | 1966 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I | II | III | IV | V | VI | Total | I | II | III | IV | V | VI | Total |
| 2 | – | – | – | – | – | 2 | 2 | 2 | – | – | – | – | 4 |
| 2 | – | – | – | – | – | 2 | 2 | 2 | – | – | – | – | 4 |
| 2 | – | – | – | – | – | 2 | 2 | 2 | – | – | – | – | 4 |
| 2 | 2 | 1 | – | – | – | 5 | 2 | 2 | 2 | 1 | – | – | 7 |
| 2 | – | – | – | – | – | 2 | 2 | 2 | – | – | – | – | 4 |
| 2 | 1 | 1 | – | – | – | 4 | 2 | 2 | 1 | 1 | – | – | 6 |
| 2 | – | – | – | – | – | 2 | 2 | 2 | – | – | – | – | 4 |
| 2 | – | – | – | – | – | 2 | 2 | 2 | – | – | – | – | 4 |
| 2 | – | – | – | – | – | 2 | 2 | 2 | – | – | – | – | 4 |
| 2 | – | – | – | – | – | 2 | 2 | 2 | – | – | – | – | 4 |
| 2 | 1 | 1 | – | – | – | 4 | 2 | 2 | 1 | 1 | – | – | 6 |
| 2 | – | – | – | – | – | 2 | 2 | 2 | – | – | – | – | 4 |
| 2 | – | – | – | – | – | 2 | 2 | 2 | – | – | – | – | 4 |
| 2 | – | – | – | – | – | 2 | 2 | 2 | – | – | – | – | 4 |
| 2 | – | – | – | – | – | 2 | 2 | 2 | – | – | – | – | 4 |
| 2 | 1 | – | – | – | – | 3 | 2 | 2 | 1 | – | – | – | 5 |
| 2 | 2[1] | – | – | – | – | 4 | 2 | 2 | 2 | – | – | – | 6 |
| 2 | – | – | – | – | – | 2 | 2 | 2 | – | – | – | – | 4 |
| 2 | 1 | – | – | – | – | 3 | 2 | 2 | 1 | – | – | – | 5 |
| 2 | 1 | 1 | – | – | – | 4 | 2 | 2 | 1 | 1 | – | – | 6 |
| 2 | – | – | – | – | – | 2 | 2 | 2 | – | – | – | – | 4 |
| 2 | – | – | – | – | – | 2 | 2 | 2 | – | – | – | – | 4 |
| 2 | – | – | – | – | – | 2 | 2 | 2 | – | – | – | – | 4 |
| 46 | 9 | 4 | – | – | – | 59 | 46 | 46 | 8 | 5 | – | – | 105 |
| 184 | 135 | 101 | 83 | 35 | 35 | 573 | 184[2] | 184 | 135 | 101 | 37 | 35 | 680[2] |

## APPENDIX I. Suggested form of school estimates accounts

| Item | I<br>Living costs | II<br>Tuition costs | III<br>Medical |
|---|---|---|---|
| A. Salaries and emoluments | *Boarding*<br>1. Responsibility allowances<br>2. Matron<br>3. Warden/caterer<br>4. Cooks and helpers<br>5. Cleaners<br>6. Total | (a) CSC; (b) HSC<br>1. Teachers' salaries,[1] responsibility allowances, ministry costs<br>2. Laboratory assistants<br>3. Librarian<br>4. Cleaners<br>5. Groundsmen<br>6. Total | 1. Nurse<br>2. Total |
| B. Stores, minor equipment and services | 1. Food<br>2. Clothing<br>3. Sanitation<br>4. Fuel and power<br>5. Water<br>6. Minor kitchen/dining-room equipment<br>7. Minor dormitory/common-room equip.<br>8. Total | 1. Textbooks (a) arts; (b) science<br>2. Teaching materials (a) arts; (b) science<br>3. Lighting/power (a) arts; (b) science<br>4. Total | 1. Medicines, other<br>2. Total |
| C. Transport | Stores, etc. | Pupils, staff and tuition stores | Pupils, staff |
| D. Maintenance and repairs | 1. Buildings<br>2. Equipment<br>3. Grounds, roads<br>4. Total | 1. Buildings<br>2. Equipment<br>3. Grounds, playing fields<br>4. Total | 1. Buildings<br>2. Equipment<br>3. Total |
| E. Depreciation | 1. Buildings<br>2. Equipment<br>3. Total | 1. Buildings<br>2. Equipment<br>3. Library (books)<br>4. Total | 1. Buildings<br>2. Equipment<br>3. Total |
| F. Total recurrent expenditure | | | |
| G. Capital additions | 1. Buildings<br>2. Equipment<br>3. Total | 1. Buildings<br>2. Equipment<br>3. Library (books)<br>4. Total | 1. Buildings<br>2. Equipment<br>3. Total |
| H. Total expenditure | | | |
| I. Replacements | 1. Buildings<br>2. Equipment<br>3. Total | 1. Buildings<br>2. Equipment<br>3. Library (books)<br>4. Total | 1. Buildings<br>2. Equipment<br>3. Total |

NOTE 1. To include responsibility allowances of senior form masters, acting headmasters, etc.

| IV<br>Administration | V<br>Sub-total | VI<br>Transport | VII<br>Maintenance and repairs | VIII<br>Total |
|---|---|---|---|---|
| . Headmaster<br>. Bursar<br>. Secretary<br>. Clerk<br>. Office boy/ Messenger<br>. Storekeepers | | 1. Driver<br>2. Mechanic | 1. Watchmen<br>2. Labour supervisor<br>3. Workmen, skilled; unskilled<br>4. Professional fees and labour charges on contract, repairs | |
| . Total | | 3. Total | 5. Total | |
| . Office<br>. Bank<br>. Post office<br>. Audit<br>. Insurance<br>. Rents/rates<br>. Employees uniforms<br>. Entertainment<br>. Contingencies[2] | | 1. Petrol/oil<br>2. Hire of vehicles<br>3. Insurance of vehicles | 1. Materials<br>2. Tools<br>3. Material cost of contract maintenance and repairs | |
| 0. Total | | 4. Total | 4. Total | |
| . Headmaster<br>. Bursar<br>. Board of Governors<br>. Total | | | | |
| . Buildings<br>. Equipment | | 1. Vehicles | 1. Maintenance equipment | |
| . Total | | | | |
| . Buildings<br>. Equipment | | Vehicles | 1. Buildings<br>2. Equipment | |
| . Total | | | 3. Total | |
| | | | | |
| . Buildings<br>. Equipment | | Vehicles | 1. Buildings<br>2. Equipment | |
| . Total | | | 3. Total | |
| | | | | |
| . Buildings<br>. Equipment | | Vehicles | 1. Buildings<br>2. Equipment | |
| . Total | | | 3. Total | |

NOTE 2. This will appear in the estimates. In the accounts, expenditure out of this vote will, presumably, appear under the appropriate head.

# The process of educational planning in Tanzania

A.C. Mwingira
Simon Pratt

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# Foreword

This monograph provides a realistic account of the process and problems involved in making an educational plan for Tanzania, viewed from the vantage point of the planning office in the Ministry of Education. The story is told by two participants—Augustin C. Mwingira, Assistant Chief Education Officer, and Simon Pratt, for nearly three years a Unesco expert serving as an education officer in Tanzania—who played important roles in the process.

After describing the legal and administrative framework for educational planning, the report proceeds to show how, starting with the existing educational circumstances, a design was fashioned for future educational change and expansion, calculated to supply the estimated manpower needs for economic growth while at the same time fitting within the nation's tight resource limits.

The authors give attention to each of the essential steps involved in formulating an educational plan—such as the diagnosis of present educational conditions, the determination of basic policies, the projection of potential student populations, the setting of basic priorities and targets in light of manpower requirements and resource limitations, the balancing of expansion plans as between primary, secondary and higher education, the determination of teacher requirements and the means for meeting them, the costing of the draft plan and then its modification and recosting to match foreseeable resources.

The dominant theme of the narrative, however, which gives it special value, is the need for constant co-operation and negotiation among all the units of government involved in the making, financing and successful execution of an educational plan. The authors stress the need especially for close co-operation between the planning office in the Ministry of Education and those in the Ministry of Development Planning responsible for elaborating projections of manpower requirements as well as those concerned with mediating the competing claims against the nation's limited financial resources. It is clearly a process in which skill and creative ideas may often play a more important role—and do more for education—than naked bargaining power.

Another major theme concerns the important role of educational innovation and reform in achieving a more effective use of available educational resources, both in educational and economic terms. The financial stringencies that surrounded Tanzania's educational plan, once it had run the gauntlet of negotiation and modification, forced new attention on the search for improvements in the educational system and its processes that might secure both a better quality and larger quantity of educational results within the means available.

Those who desire to look beyond the cold statistical methodologies of educational planning into the practical human processes of co-operation and compromise that give educational planning its real life will find this account most useful.

The Institute is grateful to the Government of Tanzania for granting permission to discuss some current issues of policy affecting educational planning.

Raymond Lyons, a senior staff member, represented the Institute professionally in working with the authors of this monograph, collaborating closely with them on the original design and at each stage of drafting until the final publication.

PHILIP H. COOMBS
Director, IIEP

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# Introduction

Educational planning in Tanzania is not by any means a new idea; a ten-year plan which included educational projects was drawn up as long ago as 1948. By 1961, when a three-year plan for development covering the period 1961-64 was launched, the planning concepts had advanced to the stage at which priorities were identified and the targets for educational expansion expressed in terms of the rate of expansion to be achieved at the various levels of education. It was, however, not until 1963, when planning began in earnest for the five-year period 1964-69, that a serious attempt was made to construct a national development plan in which the contribution to be made by each agency to agreed objectives for development was worked out, and the results used to determine the priority to be accorded to each field of activity in the allocation of funds and other scarce resources.

In 1961, to prepare the development plan, each ministry drew up a list of desirable projects, costed them and then submitted the list for approval to the Cabinet Development Committee, of which the Minister of Finance was chairman. Ministries which seemed to claim too large a share of available finance had to cut their plans back accordingly; but, apart from this financial limitation, there was relatively little effort devoted to ensuring that the plans of different ministries were mutually consistent and provided the shortest route to national objectives—not least because there had been no explicit formulation in terms meaningful to planners of what those objectives should be.

The Development Committee of the Council of Ministers already in existence was changed in 1962 into the Economic Development Commission, consisting of cabinet ministers, with its subsidiary co-ordinating committee consisting of permanent secretaries. The Minister of Finance and his permanent secretary were respectively chairmen of these two bodies. After independence in December 1961, the Prime Minister, and later the President, took the chair of the Economic Development Commission, which had succeeded the Cabinet Development Committee, although the secretariat continued to be provided by the Treasury until early in

1963, when responsibility for the Economic Development Commission was passed to the newly formed Ministry of Development Planning. The current development plan (1964-69) was prepared under the auspices of this new ministry, which was served by economic, financial and manpower advisers and which was made responsible for the co-ordination of projections of both capital and recurrent revenue and expenditure. The Economic Development Commission continued as the body responsible for the resolution of policy matters, particularly those referring to priorities; the responsibility for raising revenue and for its allocation in each successive annual budget remained with the Minister of Finance. The position of other ministries is, therefore, essentially that their annual financial requirements must, as always, be negotiated each year with the Treasury, using the National Development Plan as the framework for these negotiations.

The principal task of planners in the Ministry of Education was the preparation of a five-year development plan for education (1964-69) in a form which could be used as a basis both for the discussion of national priorities, with the Ministry of Development Planning, and for the negotiation of annual appropriations from the Treasury. In drawing up the education plan for this purpose, the planning officers of the Ministry of Education had to be fully aware of the constraints acting upon the educational system as a whole and upon its various parts. Apart from the overriding constraint on the system as a whole of availability of finance,[1] they had at all times to consider the effect of a number of other factors on their plans. The principal aspects with which they were concerned are: (a) the legal framework within which education in Tanzania is conducted; (b) the administration of the educational system and the application of administrative resources to planning problems; (c) the structure of the educational system in 1964; (d) the economic and social objectives of the plan as they affect the educational system; (e) teacher requirements and supply.

No sound plan can be drafted as a claim on the nation's resources without prior reference to every one of the above constraints. This was duly done in 1963-64 and, not surprisingly, the claim which was first made was judged to be too large to conform to national priorities; so the process of decision in which adjustments had to be made both to cost limits and to plan targets was of prime importance at that time to the educational planners.

Topics (a), (b), (c) and (d) are discussed in chapters which lead up to a description of the process of decision in Chapter 5 and of the resulting plan. Detailed discussion of the requirements for teachers and the plans for meeting them is, however, held over until the final chapter of the monograph. This has been done because these plans are best seen against the background of the five-year plan[1] itself, and because of their special importance (together with plans for the development of educational administration) in determining the educational constraints within which future plans will have to be drawn up. Now that the current plan has been launched for two years, the educational planners are becoming increasingly concerned with preparing the ground for its successors.

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[1] In Tanzania this was found to be the overriding constraint in preparing the five-year plan for 1964-69. In other situations a different constraint, such as the supply of teachers, may prove to be the limiting factor.

The financial constraints within which future plans must be drawn up cannot yet be determined with any precision, nor can anything but the broadest outlines of future manpower priorities be discerned. It is nevertheless by careful implementation of the current plan in respect of the supply of teachers and the administration of education that the necessary tools for further development of the educational system in future planning periods can be assured.

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1. United Republic of Tanganyika and Zanzibar, *Tanganyika Five-Year Plan for Economic and Social Development, 1 July 1964 — 30 June 1969*, Dar es Salaam, Government Printer, 1964, Vols. I and II.

# 1 The legal framework within which education in Tanzania is conducted

The conduct of formal education in Tanzania is the responsibility of the Ministries of Education in Dar es Salaam and Zanzibar, acting separately since education is not a union matter. The Minister of Education in Dar es Salaam is responsible for the promotion of education throughout the former Republic of Tanganyika;[1] his responsibilities are discharged in accordance with the powers conferred and the duties imposed upon him by the Education Ordinance of 1961 which came into effect on 1 January 1962, less than one month after independence.

Under the terms of this ordinance a single system of education was set up to replace the four distinct systems, African, Indian, European and other non-native, which had been in operation previously. The Chief Education Officer, appointed by the President of the United Republic as chief professional adviser to the Minister of Education,[2] also acts as chairman of an advisory council to the minister, and has at his disposal in the discharge of his duties the services of the professional education officers who make up the education division of the Ministry of Education. In addition to his advisory duties, the Chief Education Officer also has powers conferred upon him by the ordinance in respect of the conduct of schools. It is, however, in his advisory capacity to the minister that the duties of the Chief Education Officer are closely associated with educational planning, since it is the minister who is responsible for the progressive development of schools. In carrying out these advisory duties the Chief Education Officer has assistant chief education officers with responsibilities for primary, secondary and technical education, for teacher training, for the inspection of schools, for administration and for educational planning. The Chief Education Officer sitting in committee with his assistant chief education officers constitutes a *de facto* educational planning commission.[1] The secretary of this committee is the Assistant Chief Education Officer responsible for planning; he is assisted by a planning unit which is concerned mainly with the collection of statistics, the organization of capital works programmes through various agencies (both government and non-government), and the preparation of briefs for the Principal Secretary to the ministry regarding the negotiation of external aid, and negotiations with other departments, notably the Directorate of Development Planning, on planning matters.

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[1] The mainland part of Tanzania.

[2] The Minister of Education also has, as his principal adviser, the Principal Secretary to the Ministry of Education, who is the civil service head of the ministry, and a junior minister (parliamentary secretary). The Principal Secretary is the accounting officer responsible to the Permanent Secretary to the Treasury for the proper disbursement and collection of public funds. He is assisted in discharging these duties by the administration, finance, students and establishments divisions of the ministry in addition to the education division.

The principal provisions of the education ordinance are those which set up local education authorities and define their functions, provide for the establishment of boards of governors and school committees, set out the powers of the minister and the Chief Education Officer in the control of schools, and a number of general provisions of which, from a planning point of view, by far the most important are that giving the power to pay subventions and grants-in-aid in accordance with prescribed conditions and that giving the minister power to make regulations for a specified list of purposes. Twenty-one such purposes are listed, including the provision of statistics and accounts, the prescription of the basic syllabus to be followed in schools in receipt of public funds,[2] the provisions of teaching certificates and licences to teach, and the prescription of the conditions under which subventions and grants-in-aid can be paid.

The terms of the ordinance are such that the Minister of Education has, in effect, complete control of the school system; the execution of the purposes of the ordinance is, however, delegated in most instances. Thus, the ordinance requires that every local authority shall be the local education authority for primary schools within its area of jurisdiction, except that certain schools may be excluded by order of the minister. (This often happens when a school is deemed to be serving more than one local authority area.) In extreme circumstances, the minister has the power to declare an authority in default and to transfer its functions to another person or body. In practice the financial sanctions which the minister could impose by withholding subvention payments for recurrent expenditure have not yet been needed; still less has any authority actually been declared in default. With the passing of time and the gaining of experience, such an event becomes ever less likely. Moreover, the local education authorities do, in fact, exert a very considerable influence on the pattern of primary school development, within the scope of the National Development Plan, in which the national priorities for educational development are directly related to the financial contribution which the central government makes to the work of the local authorities.

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[1] The organization of educational planning in Tanzania is discussed in the *Report of the Unesco Education Planning Mission for Tanganyika, June to October, 1962*, Chapter 12. Paris, Unesco, 1963. (Out of print.)

[2] It is important to note that the University of East Africa is not a school in the sense of these regulations. The university is constituted by an act of the Central Legislative Assembly for East Africa (University of East Africa Act—1962), as amended subsequently (1963). The responsibility of the university in determining the syllabus of study to be followed is set out in this Act.

The local education authorities are each required to set up a local education committee. These committees consist of not more than ten members appointed by the local education authority and not more than five appointed by the Minister of Education after consultation with the authority; of the members appointed by the authority, at least half must themselves be members of the authority. There is thus provision made for representation of local interests in the education field who are not directly represented on the local education authority, and there is also provision for the local officers of the Ministry of Education to serve as members of the education committee, though not of the authority itself. This structure under which the minister can ensure that departmental advice is considered fully, but which nevertheless allows the local education authority freedom in forwarding proposals to the minister for approval, is a feature of educational administration in Tanzania which is rapidly proving its value, especially now that the financial relationships between the Ministry of Education and the local education authorities are being geared to give the authorities a considerable incentive to conform to the objectives of the national plan.

A further feature of development planning in Tanzania is the part played by regional and district development committees whose responsibility is to ensure that local efforts planned in association with various ministries do not clash with one another or with other aspects of established policy. For this reason, each local education authority's annual development plan is submitted to the district and regional development committees; a plan can only be submitted to the Minister of Education if it is countersigned by the Regional Commissioner who, as senior representative of the central government in each Region,[1] is chairman of the Regional Development Committee. These committees must not only be made aware of the final submission; they may also make recommendations to local education authorities for consideration in drafting or in modifying their plans.

A large part of the public educational system is administered by voluntary agencies. These are usually, though not necessarily, religious bodies; each group of agencies of similar persuasion is organized on a national basis with a secretariat headed by an Education Secretary-General, whose appointment must be approved by the Minister of Education. Grant-in-aid is paid by the government in respect of the Education Secretary-General of the Tanganyika Episcopal Council (Roman Catholic), the Christian Council of Tanganyika (other Christian), the Tanganyika

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[1] There are seventeen such Regions in the mainland part of Tanzania.

African Parents Association, the East African Muslim Welfare Society and H.H. the Aga Khan's Education Department. In this way the channels of communication between the government and the managing agencies are established at national level. At the local level education secretaries are appointed by the agencies, their appointment being subject to the approval of the Chief Education Officer. Although the position of education secretaries is not entrenched in the constitution of the local education authorities, they are in practice adequately represented since the five appointments made by the Minister of Education to each local education committee are, characteristically, the District Education Officer and up to four education secretaries responsible for the management of voluntary agency schools in the district. The power of the committees to co-opt non-voting members or to invite them to particular meetings is frequently invoked also, so that managers of individual schools or government officials other than the District Education Officer may attend meetings. In the case of post-primary voluntary agency schools, which are not the concern of local education authorities, grants-in-aid are paid to the agencies at rates approved by the minister for both capital and recurrent expenditure. Payment of these grants-in-aid is conditional upon conformity with government policy. Effective control of the schools in matters of national policy is thus assured: in particular, admissions to all secondary schools are administered by admissions committees in the Regions which meet under the chairmanship of the regional education officers.

The ministry for local government affairs also occupies an important place in the legal structure of primary education, since that ministry is responsible for ensuring that the affairs of local authorities are properly conducted, particularly where the stewardship of public funds raised locally is concerned. Consequently, all estimates of local authority expenditure have to be approved by that ministry, to which final statements must also be submitted. At the time of writing a departmental reorganization has just been put into effect to integrate the local government division of the Ministry of Local Government and Housing with the regional administration, a step which is confidently expected to lead to improvements, since the regional commissioners are the proper officers who must approve each local authority's estimates before submission to Dar es Salaam.

One further ministry, the Ministry of Community Development and National Culture, is frequently concerned with education at the local level. A distinction is drawn in Tanzania between responsibility for formal education, which rests with the Minister of Education, and responsibility for non-formal education, which rests with the Minister of Community Development and National Culture; this distinction underlies the definitions of various types of school for the purposes of the education ordinance, each of which requires that the syllabus or course followed shall be approved by the Chief Education Officer. Literacy instruction and many aspects of adult education where no secular studies are included in the curriculum are thus excluded from the brief of the Ministry of Education.[1] In discharging its responsibilities for adult education and the promotion of adult literacy, the Ministry of Community Development and National Culture may pay subventions and grants-in-aid to local authorities. The regional officers of the community development department are also intimately concerned with the local programmes of 'self-help' building, which are often directed to school building; there is, however, no formal inter-departmental relationship, apart from membership of regional and district development committees, concerned with these programmes. In practice the Ministry of Education relies upon the rules governing its contribution through subventions to local education authority recurrent revenue to influence the authorities to conform with national education priorities, which are not necessarily identical with those expressed locally through the choice of 'self-help' projects.

Other central government ministries and departments are also concerned with the pre-service training of staff in their respective fields as are inter-territorial organizations such as East African Railways and Harbours. While such activities may be classified as education in many countries, they are not the immediate concern of educational planning in Tanzania: the principal concern of the Ministry of Education is to produce an adequate flow of trainees in respect of both quality and quantity for these courses.

The principal agency responsible for implementing plans for higher education on behalf of the Tanzanian Government is the University of East Africa. The university has only recently been constituted by the Central Legislative Assembly of the three East African Governments, with effect from 1 July 1963. The legal framework within which planning has been conducted has evolved together with the university's own plans for development. In 1961, the Quinquennial Advisory Committee had recommended a pattern of development for 1962-67 which, in the light of subsequent political changes, proved inadequate for the aspirations of the newer colleges of the university. As a result, the provisional council of the university, which had been constituted by the three governments as a company operating in each of the three territories, set up the Committee on Needs and Priorities. There was no machinery in existence by which the University Development Committee was formally committed to take the requirements of the governments into account, but the membership of the committee was such that this was assured;[2] thus, for example, although the governments did not submit details of their manpower needs to either committee, the report prepared by Hunter and Harbison in 1962 for the Needs and Priorities Committee was available to the governments for comment.

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[1] Examples of adult education with which the Ministry of Education is closely concerned are the extramural activities of University College, Dar es Salaam (carried out in the Institute of Adult Education), and formal adult education, which is usually vocational in emphasis, provided through evening classes at Dar es Salaam Technical College.

[2] Membership included the Vice-Chancellor, representatives (in practice the ministers of education) of the three governments, three members of the university senate, one chosen from each of the three constituent colleges, and the university registrar, with the principals of the three colleges in attendance.

It remains true, however, that there is no formal relationship between the university and the governments regarding the response of the university to expressed government priorities. The balance of the relationship as it affects planning is found in paragraph 5 (1) of the University of East Africa Act (1962) as amended in 1963. The paragraph, which sets out the objects and functions of the university, includes both 'to preserve. . . in particular the right of a university, or a university college, to determine who may teach, what may be taught, how it shall be taught and who may be admitted to study therein' and 'to co-operate with governments or other appropriate bodies in the planned development of higher education'. Clearly these two objectives require procedure by agreement on many issues.

Although the University of East Africa is the principal agent of the three East African governments in higher education, it is not the only agent. The flow of students to and from institutions of higher education overseas has made an important contribution to meeting high-level manpower targets, although it will rapidly decline in importance in all but highly specialized fields now that the University of East Africa has become able to admit all students qualified for entry. The urgent need to co-ordinate policy on overseas students was met by the establishment of the Cabinet Committee on Higher Education, which is the ultimate authority on the award of students' bursaries. The registrar of students, who is secretary to the committee, is an officer of the Ministry of Education.

A later development, along with the establishment of the Ministry of Development and Planning, was the setting up of the Standing Advisory Committee on Manpower. One of the functions of this latter committee is to make recommendations to the Cabinet Committee on Higher Education regarding the allocation of students' bursaries between the various courses offered at the University of East Africa and elsewhere. The award of these bursaries is conditional upon the student giving an undertaking to enter employment as directed or approved by the government in the light of manpower needs for a minimum of five years after graduation. The resulting system of tied bursaries is regarded as a cornerstone of Tanzania's programme for the achievement of self-sufficiency in high-level manpower by 1980.

The conclusion drawn in 1962 by the Unesco Education Planning Mission to Tanzania that the state of the law of education is adequate and does not constitute a constraint upon development still held good three years later. The conclusion of the Unesco mission did, however, rest very much upon the minister's powers to make regulations under Section 38 (1) of the ordinance; these powers have been used, for example, in redefining a 'primary school' to fit with the development of the seven-year course under the current plan and in establishing a code for the handling of serious disciplinary offences by school pupils. Thus, the satisfactory state of the law in action continues to depend on the accurate anticipation of matters to be covered by the provisions of the law in all those fields in which ultimately responsibility rests entirely with the government. This is the situation in all fields of education except that of the University of East Africa. In this instance (leaving aside the question as to whether the government's relationship with the University of East Africa will soon be overtaken by events leading to the constitution of University College, Dar es Salaam as a university) the legal provision for financial control by the government seems adequate to preserve the government's interests in full without upsetting the balance of responsibilities between the government and the university in the day-to-day conduct of the university's affairs which has already been described.

# 2 The administration of the educational system

The conclusion of Chapter 1—that the state of the law of education is adequate and that it does not constitute a constraint upon development—was reached only with the caveat that the successful application of the law in promoting development depends upon the accurate anticipation of matters to be covered by the provisions of the law; this is the task of those who are responsible for the administration and inspection of education.

Apart from the distinction to be made between the administrative and inspection functions, there is also a distinction to be made between the arrangements under which the Minister of Education delegates some of his power to others and the administrative arrangements which are made so that the Chief Education Officer can properly exercise his powers and can fulfil his advisory duties towards the Minister of Education. Whichever part of the administrative or inspectorial structure is being considered, there is the pressing problem of manpower shortage to be borne in mind at all stages of planning. Thus the administrative procedures needed for plan implementation must be as carefully planned as the availability of funds or the supply of teachers. This leads to what must be virtually an axiom of planning in a situation where there is an acute shortage of high-level administrative manpower; it is that future plans must be drawn up in such a way as to maximize the chance of their implementation by the administrative staff likely to become available.

Even if a small number of high-level administrators, planners and inspectors can be found through external aid channels to carry out executive and advisory functions within the central government, there is no truly acceptable substitute for local officers in the most senior posts, where responsibility for many decisions must be taken, or in the large number of posts in the field, where close acquaintance with local conditions and numbers adequate to maintain effective contact are prerequisites for success.

There is, however, a danger inherent in accepting this axiom too easily; if the planning choices are to be dictated by the limitations of the administrative machine, then it can fairly be said that the tail wags the dog. Thus there was concern during the recent three-year plan period 1961-64, not only to devise adequate administrative procedures for its implementation, but also to create an administrative structure which could be expected to be an adequate vehicle for the implementation of the next plan (i.e., the current five-year plan for 1964-69).

## Selection and preparation of statistics

One important condition for planning is the creation of an adequate statistical service. The flow of statistical information through the various stages of plan preparation is summarized in Diagram 1. This shows how an accurate statistical description of existing educational facilities and an analysis of the costs of education which lends itself to projection into the future are essential to the process of translating the manpower and social objectives of a plan into financial terms.

The principal categories of statistical quantities which must be either collected or estimated by educational planners are: (a) existing enrolments, for comparison with the target enrolments, to estimate the size of the development task; (b) educational provision, i.e. class-rooms, serving teachers, university places, etc.; (c) cost of making existing and projected educational provision; (d) such additional statistics as are required to ensure that the national teacher-training programme can be developed in close conformity to the requirements of the over-all plan.[1]

The first two of these groups of statistics are collected in the field where the largest part of the information, that concerned with primary education, must be collected and collated by the Ministry of Education's district education officers. Without a clear understanding of the use to which the statistics are to be put, the district education officers (who are mostly recent recruits from being headmasters of rural primary schools) would probably regard statistics as being far down their list of priorities. They would moreover find it quite impossible to give essential assistance to local education authorities in preparing their development proposals. It is recognition of these facts which has led the Ministry of Education to concentrate on the collection of the smallest practicable quantity of statistics, so that every effort can be made to ensure their quality. All newly appointed district education officers come to Dar es Salaam for an intensive training course of six weeks during which the importance, and the interlocking nature, of statistics, of day-to-day administration and of planning are continually stressed.

Specimens of the three principal statistical forms used for planning primary education are shown in the Appendix on page 193. The first form is

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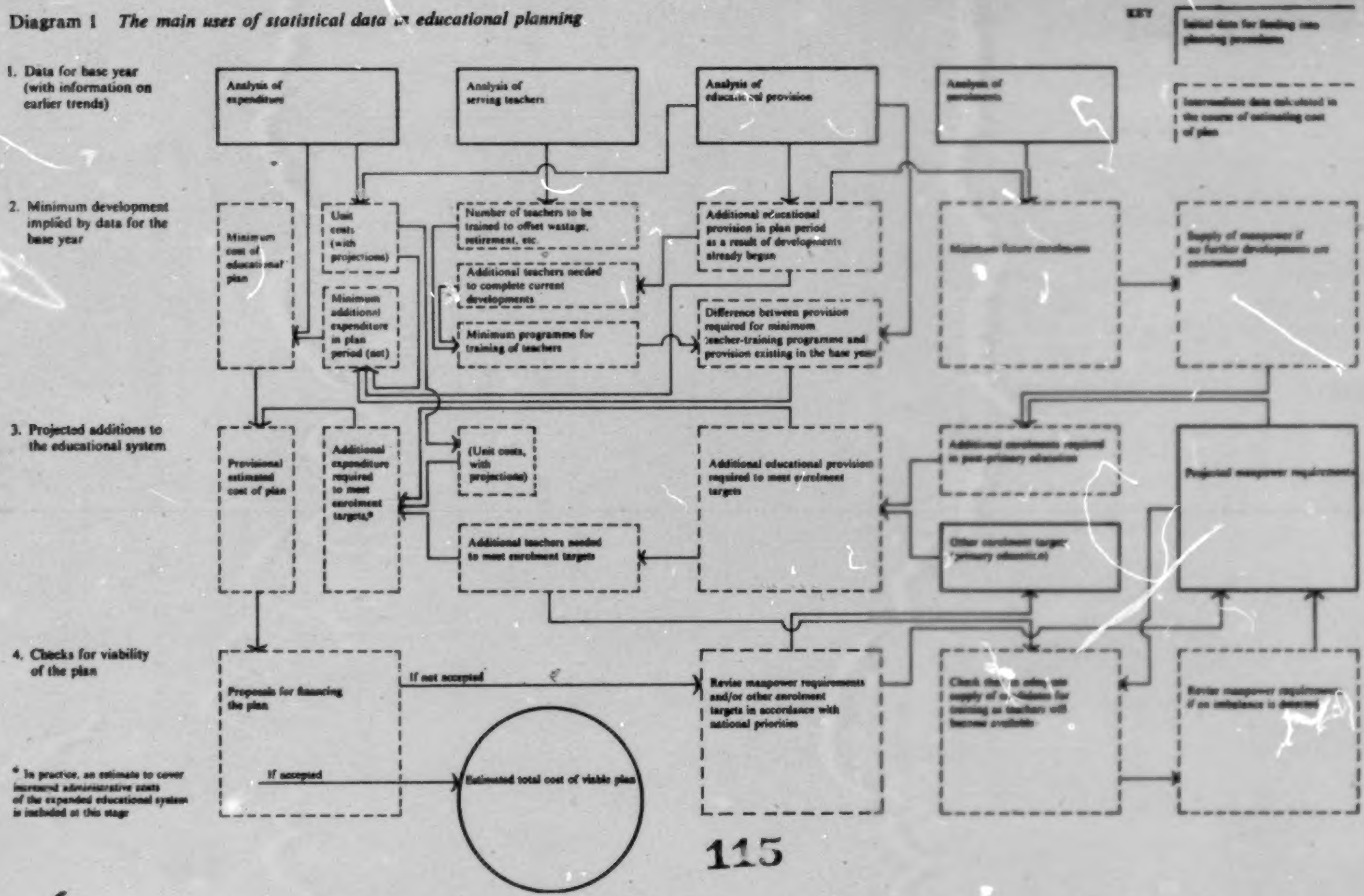
[1] See Chapter 7.

Diagram 1 *The main uses of statistical data in educational planning*


KEY
Initial data for feeding into planning procedures
Intermediate data calculated in the course of estimating cost of plan
1. Data for base year (with information on earlier trends)
2. Minimum development implied by data for the base year
3. Projected additions to the educational system
4. Checks for viability of the plan
Analysis of expenditure
Analysis of serving teachers
Analysis of educational provision
Analysis of enrolments
Minimum cost of educational plan
Unit costs (with projections)
Minimum additional expenditure in plan period (net)
Number of teachers to be trained to offset wastage, retirement, etc.
Additional teachers needed to complete current developments
Minimum programme for training of teachers
Additional educational provision in plan period as a result of developments already begun
Difference between provision required for minimum teacher-training programme and provision existing in the base year
Minimum future enrolments
Supply of manpower if no further developments are commenced
Provisional estimated cost of plan
Additional expenditure required to meet enrolment targets*
(Unit costs, with projections)
Additional teachers needed to meet enrolment targets
Additional educational provision required to meet enrolment targets
Additional enrolments required in post-primary education
Other enrolment targets (primary education)
Projected manpower requirements
Proposals for financing the plan
If not accepted
If accepted
Estimated total cost of viable plan
Revise manpower requirements and/or other enrolment targets in accordance with national priorities
Check that an adequate supply of candidates for training as teachers will become available
Revise manpower requirements if an imbalance is detected

* In practice, an estimate to cover increased administrative costs of the expanded educational system is included at this stage

essentially an inventory of educational facilities (including teachers) as they exist in the field. Form 2 illustrates the expenditure data which are collected from local authorities and used by the Ministry of Education to estimate unit costs. Form 3 shows the form which is completed by district education officers in submitting the local authorities' proposals for new development; on this form the four columns on the right-hand side summarize existing facilities, additional proposals, requirements for their implementation, and a summary of the proposed system. The forms are used for individual schools and aggregated for local authority areas so that the full financial implications can be seen (and compared with the Ministry of Education's forecast of the likely extent of development) before submission to the Minister of Education for approval.

The collection and collation of financial statistics has proved to be a rather more difficult problem. Initial attempts to collect the information in the form required for planning purposes were unsuccessful, largely because the relatively small number of field officers of the ministry who were fully conversant with the statistics required were invariably among those with the largest work loads. The collection of statistics in the form in which they arise naturally from day-to-day administration has proved to be much more successful and, provided that the interpretation is done by someone with a working knowledge of the administration, the resulting estimates of unit costs[1] have proved to be very valuable in planning.

In the absence of any relevant data for analysis it is often possible to use target expenditure rates as a method of delimiting financial commitments while encouraging the best use of available funds. This type of approach is of particular value where reorganization makes analysis of previous expenditure largely irrelevant (e.g., teachers' colleges) or where a new type of institution is to be built (e.g., University College, Dar es Salaam). Broad outlines are obtained by comparison with practice in other countries but the final figures are reached with direct reference to local conditions and the scope of work which they make possible.

## Preparations for implementation of the plan

Another important example of preparation for planning is found in the forward planning of the subvention system, which is the financial instrument used by the minister to influence the actions of the local education authorities to which he has delegated powers in the field of primary education, so that it has been sharpened into an instrument both of administration and of planning policy.

The pre-independence arrangements by which (expatriate) regional education officers, who were servants of the central government, administered a considerable part of the primary school system directly and the remainder of it, together with voluntary agency secondary schools and teacher-training colleges, indirectly by means of grant-in-aid, was replaced by a system under which the central government contributed a subvention, fixed in advance, towards each local authority's expenditure on education.

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[1] Unit cost statistics are discussed in detail in J.B. Knight, *The Costing and Financing of Educational Development in Tanzania*, in Vol. II of this series, 'Costing and Financing'. Paris, Unesco/IIEP, 1969.

Initially the rate of subvention paid to each authority was fixed at the same level as government recurrent expenditure on its education system in the last year (1961) of the old system. In this way the recurrent cost of all new development became the responsibility of the local education authorities. As the local education authorities, and their advisers, the regional and district education officers, have gained experience it has become possible to make the system more sophisticated. A new financial incentive to conform to government priorities was introduced by making additions to the value of the central government subvention vary in magnitude according to easily understood formulae.[1] These reflected the priorities attached in the plan to different categories of development. The precise manner in which this would be done was not determined until very late in the preparation of the plan; the important point in the early stages of preparation was that an administrative vehicle by which planning priorities could be reflected in financial policies was made available.

## The training of administrators and inspectors

The creation of the administrative machine is not, by itself, enough. Steps must also be taken to prepare the people who will run it. These are the regional and district education officers, who must be made ready to advise both the Chief Education Officer and the local education authorities. Also there is no point in launching a capital programme to foster improvements in the quality of work in the schools if there is no corresponding provision of a professional advisory service to the teachers, a need which has been met by the creation of the new cadre of primary school inspectors. The selection and training of the new district education officers and primary school inspectors was a major concern of the Ministry of Education during the 1961-64 period. A circular was issued by the Ministry of Education in February 1963 in which the functions of primary school inspectors were defined and distinguished from those of the district education officers; this was followed by a second circular which summarized the functions of the primary school inspectors as such: (a) the inspection of schools and especially of class-room work; (b) the organization of refresher courses for teachers; (c) the dissemination of advice on syllabuses; teaching method, examination questions, books, etc. The functions of the district education officers were to: (a) advise and work with the local authority in the planning, development and administration of education; (b) ensure that the education ordinance and regulations are observed; (c) attend to school buildings, school equipment, school health and school feeding; (d) advise on the staffing of schools and to report on individual teachers when, for any reason, a special report is required; (e) organize and conduct examinations; (f) co-operate with the primary school inspectors in the non-teaching aspects of school inspection (i.e., organization, finance, buildings, furniture and equipment). The circular went on to emphasize that, although the functions are differentiated, they are also complementary, and it is the responsibility of the regional education officers, to whom both the primary school inspectors and the district education officers are responsible, to ensure that there are regular exchanges of information and advice between their staff members which should be a regular feature of the campaign to raise the levels of attainment in the primary schools.

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[1] *Tanganyika Five-Year Plan . . .*, op. cit., Vol. II, pp. 111-115.

This list of functions was then used as the framework of the syllabus for the training courses conducted by the Ministry of Education, which appointed three training officers for the purpose. In preparing the curriculum for these courses the training officers took particular care to establish the relevance of all topics to work in the field by the liberal use of practical studies, while ensuring that the theoretical content of the work was given its proper place; the response of the trainees to the courses has been one of the most immediately gratifying aspects of recent educational development, which has already led to an obvious improvement in the services rendered by the ministry to the schools. For the planners it has opened up many possibilities for development in the schools, particularly qualitative developments, which would have been dismissed as impractical for large-scale implementation only two years ago. The cost of such courses is insignificant when compared to the total annual government subvention for primary schools.

## Ownership, management and control of schools

The problem of providing an administrative vehicle which is adequate for the purposes of the plan is not necessarily dealt with only by innovation; selective retention of some aspects of the existing education system may be essential to the effective working of the plan. It is perhaps an obviously attractive policy to a newly established government that all schools should be owned by the public authorities; there are probably conditions in some countries where the immediate adoption of such a policy seems imperative. There are, however, other countries, including Tanzania, where the advantages to be gained by allowing a variety of ownership and management of schools in a system controlled by government are considerable. This not only provides a means by which additional effort and resources from both inside and outside the country can be directed into education; it also provides an administrative infrastructure capable of such operations as the payment of teachers, the erection of buildings and the purchase of textbooks which the government would find it difficult to replace. Thus, by their continuing participation in education the voluntary agencies, even though their past histories may invoke memories of clashes of religious or even of racial interests, are making an invaluable, indeed essential, contribution to the well-being of Tanzanian education; provided of course that the Minister of Education is not impeded in discharging his obligation under the education ordinance to ensure the progressive development of schools, they will continue to do so. The future role of the voluntary agencies in the administration of education presumably depends upon their ability to continue as effective counterparts to the government, an effectiveness which will doubtless depend at least in part on the changes which are taking place within the agencies themselves as they become increasingly Tanzanian in character and outlook.

It is not sufficient, however, merely to assert that the law of education makes government control of all schools in receipt of public funds secure; two major changes in administration were necessary if government control of educational policy was to become effective in practice. One of these was brought about by the implementation of the Unified Teaching Service (UTS); the other was the reorganization of the responsibility for the inspection of schools, so that this function was carried out by the controlling body, i.e., central government, rather than by the owners of the schools, i.e., local authorities and voluntary agencies.

The terms of the Unified Teaching Service Act along with the regulations made under its terms since it became law in 1963 make provision for the establishment of a central board made up of teachers' and employers' representatives with a secretariat provided by the Ministry of Education to consider the terms of service of all UTS members (membership being open to all Tanzanian teachers and to some non-citizens also), and to administer the contractual relationships between UTS members and their employers in accordance with 'UTS terms' of service, which were to be common to all its members. The task of supervising the administration of the UTS is largely delegated to regional boards which, like the central board, is made up of teachers' and employers' representatives with a secretariat provided by the Regional Education Officer, who is also *ex officio* chairman of the regional board. The regional boards are responsible for enrolling qualified teachers into the service and for considering recommendations for promotion, initiated either by employers or by the Regional Education Officer, for forwarding to the Chief Education Officer for approval. Although it is not essential for control purposes that the Ministry of Education should employ all teachers, it is essential that it should be able to influence their contractual relationships with their employers (especially where promotion on the grounds of professional competence is concerned) and that this influence should not depend upon the identity of an individual teacher's employer.[1] The establishment of the Unified Teaching Service, with its uniform conditions of service for all members and powers to initiate disciplinary action conferred on regional education officers in their capacity as chairmen of the regional boards, meets this need.

The reorganization of responsibility for the inspection of schools was essential if the executive arm of government was to be accountable to the legislative branch in the disbursement of subventions and grants-in-aid to school managements. Clearly it was no longer adequate that the inspection and supervision of voluntary agency schools should be carried out mainly by voluntary agency school supervisors since this put the voluntary agencies in the invidious position of being both cashier and auditor. Therefore, quite apart from the need for a primary school inspectorate as an agent of change in the schools, it was needed so that the Chief Education Officer, and through him to the Minister of Education, could be kept fully informed of the work being carried out under his direction. All primary school inspectors are therefore now civil servants, some having been recruited from the ranks of the former government school supervisors, some from voluntary agency school supervisors and others from teaching posts. The administration of primary schools, by local education authorities or by voluntary agencies through their education secretaries, and their inspection are therefore now entirely separate functions associated with the ownership of schools and the control of educational policy respectively. With this position established,[2] it is clear that, from a planning point of view, any body which is administratively competent and willing to participate in the planned development of education should be welcome to do so.

## The educational planning unit

The administrative structure which has been discussed so far has been concerned entirely with the implementation of plans. It is necessary also to make adequate administrative provision for the preparation of plans and for the control of their implementation. The *de facto* educational planning commission with a secretariat provided by an education planning unit within the education division of the Ministry of Education[3] has already been mentioned in discussing the role and powers of the Chief Education Officer in Chapter 1. The work of the planning unit is not restricted to the preparation of plans; it is also responsible to the Chief Education Officer for the co-ordination of their implementation. Its work can be summarized under six broad headings:

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[1] The fact that teachers can be employed by the government 'on UTS terms' is somewhat anomalous. The category of government-employed teachers will, however, become a wasting category once all schools are managed by local education authorities, voluntary agencies or boards of governors.

[2] And with a substantial number of trained district education officers and primary school inspectors now serving in the field (1966).

[3] As recommended by the Unesco Educational Planning Mission to Tanganyika, 1962.

1. Assist the Minister of Education in consultations leading to the formulation of national plan objectives and to analyse and interpret them in educational terms, using statistical methods wherever these are applicable.
2. Also using statistical methods wherever they are applicable, to analyse the constraints, legal, administrative, historical[1] and professional, which must be respected or modified in reaching these objectives.
3. Formulate educational programmes accordingly, so that plan objectives can be costed in terms of both money and manpower.
4. Provide the quantitative information with educational interpretation required for decisions about priorities when resources are not adequate for implementation of the whole of the proposed plan, and, in doing so, to assist the Chief Education Officer in establishing the priorities to be given to the different projects in the various sections of the plan so as to retain the viability of the plan as a whole.
5. Advise the Chief Education Officer on all matters relating to co-ordination of plan implementation between the various sections of the Ministry of Education and between the Ministry of Education and other departments of government (notably the Treasury[2] and the Directorate for Development and Planning).
6. Advise the Chief Education Officer whenever it seems prudent to make amendments to the plan as formulated, by adjustment either of the plan targets or of their interpretation or by the introduction of new methods of implementation.

Each of these functions clearly requires an intimate knowledge of the conduct of educational processes—the phrase a 'sense of process' is perhaps more expressive of what is needed—and it is for this reason that the formulation of educational plans is regarded as a task for educators with an appreciation of priorities rather than one for specialists in the determination of priorities who, while having a more sophisticated picture of the economic and manpower situation in the country, are correspondingly less likely to be fully aware of the true possibilities for educational development.

Of these six functions, the first four are concerned mainly with the preparation of plans. They are discussed elsewhere in this study.

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[1] The term 'historical constraint' simply means the limitations on freedom of future action which arise directly from past actions. Examples are manpower shortages arising from past circumstances and the actual geographical distribution of school facilities with which the planners must start their work.

[2] All negotiations for external aid are conducted through the Treasury.

## The co-ordinating function of the planning unit

The fifth of the above functions is the one which perhaps needs more persistence than any other in its discharge; it is the co-ordinating function which becomes the main task of the planners once a plan has been approved by parliament. It is their task to prepare the briefs which are needed when money is sought to carry out the programmes and to see that the capital works programme can be organized satisfactorily; the task of reporting progress must be attended to and there is also a considerable amount of work to be done together with those responsible for secondary schools in connexion with selection processes where manpower considerations are involved. In order to fulfil these tasks the Assistant Chief Education Officer (planning) needs a supporting professional staff; in practice, the staff of the planning unit consists of the Assistant Chief Education Officer himself and three other education officers: his assistant, who is mainly concerned with organizational and financial matters, an education officer to supervise the collection and processing of statistics and an officer to supervise the school building programme.

The actual construction of school buildings is organized by the ultimate managers of the school, whether they are to be the government itself,[1] voluntary agencies or local authorities. In all cases, however, the Ministry of Education has an obvious interest in the planning of new works to take advantage of recent developments and experience, both in education and in architecture and building. The appointment of a qualified architect to serve within the educational planning unit was a fairly recent development (January 1965) intended to meet this need and to provide the Ministry of Education with professional advice in organizing the supervision of building programmes of voluntary agencies and local authorities. The appointment of this officer has also proved invaluable in developing the unit cost approach to capital programmes.

The Education Officer (statistics) is responsible for the collection and maintenance of records. He is a former District Education Officer, whose principal concerns are with the collection of statistics relating to educational administration (e.g., the organization of the distribution of examination papers for the general entrance examination for primary school leavers) as well as the statistics needed for planning and report purposes.

The head of the planning unit and his assistant are together concerned primarily with co-ordination. Naturally, in a comprehensive national plan covering a wide variety of activities, co-ordination with other government departments is carried out mainly in financial terms—the preparation of the annual development estimates is the most obvious example, but by no means the only one. In the day-to-day course of events, a swift decision for the reallocation of a relatively small amount of money or a rapid improvisation in co-operation with another department can make the difference between success and failure in bringing projects to completion in time to conform with the enrolment programme. While such flexibility can endanger the whole plan, if applied indiscriminately, its use within the plan framework and with proper consideration of the educational implications is essential if frustrating delays or expensive makeshift arrangements are to be avoided.

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[1] The Ministry of Housing acts as agent for the Ministry of Education in this instance.

It is the responsibility of the Treasury to secure the government's share of the finance needed for the whole development plan, whether from internal or external sources. Whenever external aid for a project is being sought by the Treasury it is dependent upon the executing ministry or department for the preparation of draft policy statements and other documents for submission to the external agencies concerned. For example, one of the first major tasks of the planning unit (which at the time consisted of one officer only) when it was first established (in 1962) was to prepare the way[1] for a formal agreement (in 1963) between the Tanzanian Government, represented by the Treasury, and the International Development Association for a credit to be used for the construction and equipment of secondary schools. In this, as in other examples of international aid agreements, external agencies must be satisfied that the proposals under consideration form a part of the properly planned development of the educational system and that they can in fact be implemented according to plan. Once negotiations have been formally opened, points such as these can be established by preparatory correspondence and meetings between the Ministry of Education (represented by the planning unit) and the external agencies; without these preliminary contacts, it seems that the flow of effective external aid into the educational system would be minimal.

The sixth and last of the functions of the planning unit which has been listed is a function which may seem at times, under the pressure of everyday events, to lie dormant. The temptation to let it remain so is also considerable, especially because the incessant introduction of alternative proposals is a well-known tactic, throughout the world, of those who would delay decisions leading to action. Nevertheless a plan which cannot be modified in the light of experience or of new knowledge is a poor plan—a wasteful plan, if opportunities of further progress are wasted. The period of urgency in which initial plans have been prepared, in Tanzania and elsewhere, and in which the pressure to get those plans launched in practice, must be followed by a period in which more time is given to reflexion and reconsideration of what is being done. This may or may not lead to revisions of the current plan, but it cannot fail to contribute to the quality of its successors.

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[1] With the assistance throughout of the then Ministry of Communications, Power and Works, which was at that time responsible for government building works.

# 3 The educational system in 1964

The educational system in Tanzania, as illustrated in Diagram 2, consists, as in other countries, of primary and secondary schools, higher education at university and a number of sectors which are to a greater or lesser degree vocational in character and outlook. Of these sectors, technical education and teacher training are provided under the auspices of the Ministry of Education, while courses leading directly to careers in occupations other than teaching are the responsibility of the employers concerned; in practice, most of these employers are in the public sector and the various ministries[1] organize training courses for their own personnel, as do the East African inter-territorial organizations.[2]

## Primary education

Within the primary educational system two sub-levels, upper and lower primary school, can be distinguished. An initial four-year course at lower primary school is followed by an upper primary school course for selected pupils.[3]

There are hardly any boarders attending lower primary schools in standards I to IV of public schools, although boarding provision is made in a few areas where a very high proportion of the population is nomadic.[4] The teachers at this

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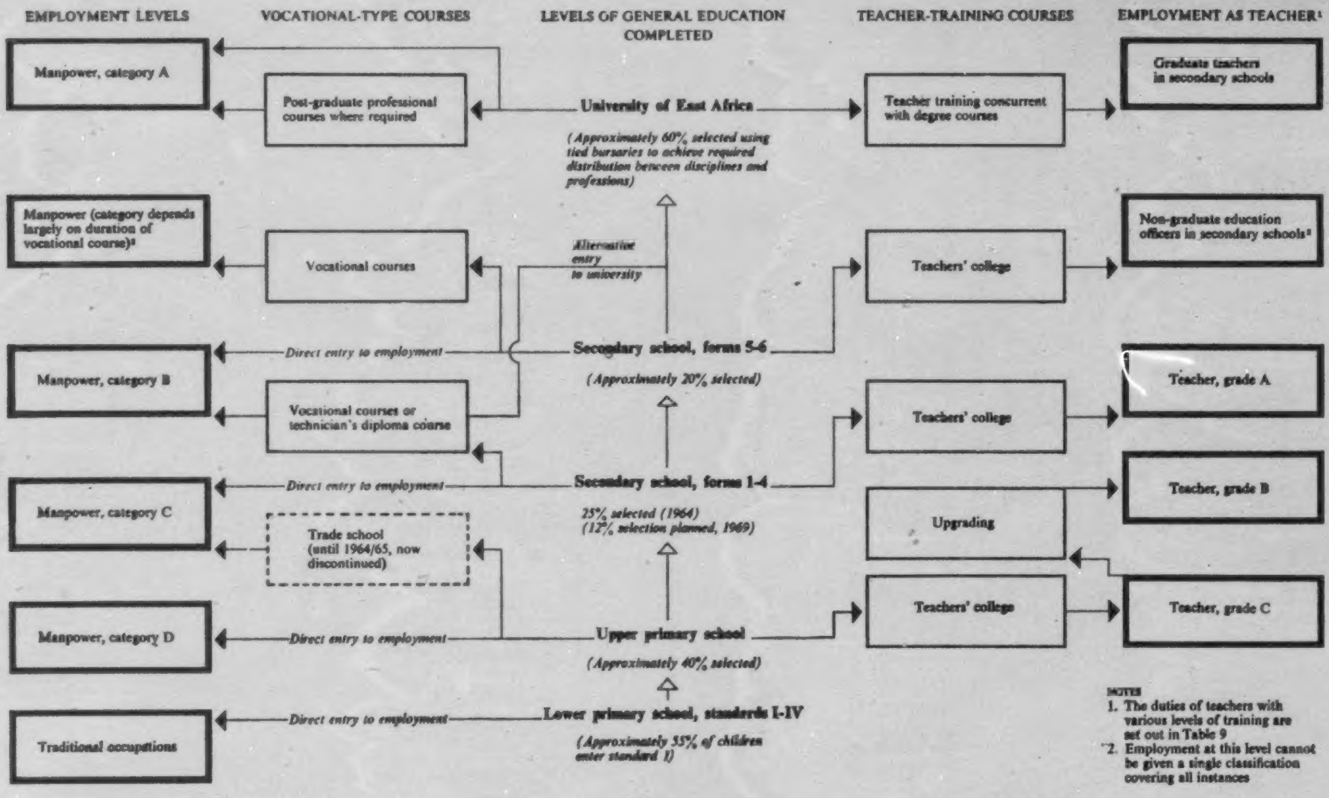
[1] The Ministries of Agriculture, Health, Lands Settlement and Water Development, the Central Establishments Office (which is responsible for staffing the Civil Service) and the Ministry of Regional Administration (which has taken over the functions of the Local Government Service Commission) are most active in providing these courses.

[2] For example, East African Railways and Harbours, East African Income Tax Organization, East African Posts and Telegraphs Administration, East African Common Services Organization and East African Airways.

[3] In Tanzania, primary grades are referred to as 'standards' and secondary grades as 'forms'. In the towns all pupils continue from the lower primary standards to the upper primary standards without having to pass a selection examination.

[4] There was a total of fourteen such classes in standard I in 1964 out of a total of over 3,000 classes.


EMPLOYMENT LEVELS
VOCATIONAL-TYPE COURSES
LEVELS OF GENERAL EDUCATION COMPLETED
TEACHER-TRAINING COURSES
EMPLOYMENT AS TEACHER¹
Manpower, category A
Post-graduate professional courses where required
University of East Africa
(Approximately 60% selected using tied bursaries to achieve required distribution between disciplines and professions)
Teacher training concurrent with degree courses
Graduate teachers in secondary schools
Manpower (category depends largely on duration of vocational course)²
Vocational courses
Alternative entry to university
Teachers' college
Non-graduate education officers in secondary schools²
Direct entry to employment
Secondary school, forms 5-6
(Approximately 20% selected)
Manpower, category B
Vocational courses or technician's diploma course
Teachers' college
Teacher, grade A
Direct entry to employment
Secondary school, forms 1-4
25% selected (1964)
(12% selection planned, 1969)
Manpower, category C
Trade school (until 1964/65, now discontinued)
Upgrading
Teacher, grade B
Manpower, category D
Direct entry to employment
Upper primary school
(Approximately 40% selected)
Teachers' college
Teacher, grade C
Traditional occupations
Direct entry to employment
Lower primary school, standards I-IV
(Approximately 55% of children enter standard I)

NOTES
1. The duties of teachers with various levels of training are set out in Table 9
2. Employment at this level cannot be given a single classification covering all instances

Diagram 2 *The educational system of Tanzania, showing relationships with manpower categories and the teacher-training system* level of education are nearly all grade C teachers who have had eight years[1] of primary education followed by two years of training in a teacher-training college. Some have been promoted to higher grades, either 'on merit' or after attending government-sponsored upgrading courses, and others have attended special supplementary courses such as that provided for teachers of domestic science; the great majority of grade C teachers can, however, be regarded as being educated and trained only for teaching up to standard VI.

At the upper primary school level (standards V to VIII) where entry is selective outside the towns, there is a corresponding need for and provision of boarding school places. Whereas in 1961 nearly all standard V classes open to rural pupils were in boarding schools, the situation has now changed dramatically following the institution, under the three-year plan for 1961-64, of extended primary schools. While the number of places available for boarders (about 12,000 per annum at the time of independence) has hardly altered, hundreds of lower primary schools have been extended by the addition of upper standards for day pupils[2] so that by 1964 there were 44,000 pupils enrolled in standard V while the number of pupils in standard VIII for the first time[3] was still less than 18,000.

The staffing formula for the upper primary standards, whether in boarding or in extended primary schools, provides for a grade C teacher for standard V, a grade B teacher for standard VI and a grade A teacher for each of standards VII and VIII together with one additional grade C teacher for each school. Grade A teachers are those who have had two years of teacher training after satisfactorily completing the four-year secondary school course, while grade B teachers are those who have had two years of training but whose secondary school courses were either curtailed after two years or were not satisfactorily completed; alternatively grade B teachers are upgraded or promoted from grade C.

A feature of the current five-year plan (1964-69) is the reorganization of the primary school pyramid so that the lower primary school course of four years can be improved by the introduction of full-day attendance throughout the country in standards III and IV, while the opportunity is taken, in conjunction with a rapid expansion of training facilities for grade A teachers, to close the gap[4] between the actual pattern of staffing in upper and extended primary schools and the 'staffing formula' which is regarded as the minimum necessary to provide an adequate course at this level of instruction. At the same time, the total length in years of the full primary school course is being reduced from eight to seven.

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[1] Some older teachers have had less than eight years of primary education, since they entered training college when the primary school course ended after standard VI (six years of primary education).

[2] This was, of course, the normal form of development in the towns, but its application in rural areas was new.

[3] That is, excluding 'repeaters' from the standard VIII classes of the previous year.

[4] See Table 11.

## Secondary education

At the end of the full primary school course,[1] all pupils seeking to continue their education[2] are candidates for the general entrance examination; this is a selection examination, set centrally but marked and administered in the Regions, which is used principally to select pupils for entry to secondary schools, but which is also used to select entrants to grade C teacher-training courses; it has also been used to select entrants to the now discontinued full-time 'trade school' courses for pre-apprentice craftsmen. The number of secondary school places to be filled is determined with reference to projections of manpower requirements.

The basic secondary school course now lasts four years;[3] it leads up to the joint examination for school certificate and general certificate which is at present organized, set and marked by the Cambridge (England) Overseas Examinations Board. It is at the end of this basic secondary school course that the largest number of pupils leave school to enter the labour market in the middle and high-level manpower categories where shortages are most keenly felt. A large proportion of these secondary school leavers do not immediately set to work, but are instead enrolled in pre-service vocational courses organized by their ultimate employers or by public bodies interested in their field of employment. The fact that pre-service training allowances are paid to these pupils (including students at Dar es Salaam Technical College and those in training to become teachers) once they enter training appears to be of considerable importance in determining the career choices of some of them. This is also the level of education at which the largest number of full-time students enter the Dar es Salaam Technical College.

About one-sixth[4] of the pupils who reach the end of the basic secondary school course are selected to continue their studies at one of the secondary schools where provision is made[5] for a two-year course leading to the level of the Cambridge higher school certificate. The results of this examination are used in selecting entrants to the University of East Africa and, by the government, in selecting candidates for the award of bursaries for courses of higher education. Those who are not selected for university courses are usually admitted to non-university pre-service training courses (medical assistants, local government officers, village settlements officers,

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1. Until 1964 this was standard VIII; in 1968 it will be standard VII. The years 1965-67 are 'change-over' years to the seven-year primary school course.
2. In practice, virtually all children who are eligible.
3. Formerly only selected pupils in the African boarding schools continued beyond the first two years.
4. The precise number is determined, as for secondary school entrants, with reference to projections of manpower requirements.
5. There is one school accommodating an annual entry of 200 pupils, where higher school certificate courses only are provided. The more usual arrangement (twelve schools in 1964) is by the provision of courses for forty pupils annually (twenty 'arts' and twenty 'science') by extension of secondary schools where school certificate courses are taught.

agricultural and veterinary officers and teachers for direct entry to the education officer, grade III cadre are among those trained in this way), while some enter directly into employment.

## Higher education

Facilities for higher education are provided by the University of East Africa, which is made up of three constituent university colleges at Makerere (Uganda), Nairobi (Kenya) and Dar es Salaam (Tanzania). The undergraduate courses are organized with direct reference to manpower requirements and forecasts of the number of students likely to qualify for entry to the courses.[1] The number of government bursaries to be awarded for the study of any particular subject is also determined with direct reference to the manpower forecasts and the holders of bursaries are required to give an undertaking that they will serve the government, or serve as government directs, for five years after completing their studies. This 'tied bursary' scheme is designed to make sure that government expenditure on higher education produces not only the right quantity, but also the right kinds of high-level manpower. At the time of writing there are relatively few Tanzanians engaged in post-graduate study at the University of East Africa, although some are studying overseas. Places in universities outside East Africa are also used for students in courses, usually leading to specialist professional qualifications, which are not provided (for reasons of economy) at the University of East Africa.[2]

## Technical education

The Dar es Salaam Technical College is the only institution providing post-secondary technical education in Tanzania. In addition to providing a wide variety of part-time educational and vocational courses (which, because suitable students for full-time courses were not forthcoming, constituted the main activity of the college as recently as 1963), there is a three-year course for secondary school leavers (school certificate level) leading to a technician's diploma. Although this course is intended primarily as a 'terminal' course leading directly to employment, arrangements have been made to ensure that suitable candidates can apply for admission to university engineering courses,[3] should they wish to do so.

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[1] See also A. C. Mwingira, *High-Level Manpower Needs of East Africa and the University of East Africa: The Role of the University of East Africa*, The East African Academy, Seminar on Higher Education, July-August 1965.

[2] Such as dentistry, town planning, forestry.

[3] Courses leading to the B.Sc. (engineering) degree of the University of East Africa are provided at University College, Nairobi.

# 4 The economic and social objectives of the national plan as they affect the educational system

The three main objectives of the current five-year plan were enunciated by the President of the Republic in his speech introducing the plan to parliament, thus: 'By 1980 (a) to raise our *per capita* income from the present £19.6 s. to £45; (b) to be fully self-sufficient in trained manpower requirements; (c) to raise the average expectation of life from the present 35 to 40 years to an expectation of 50 years.'[1]

Thus it was immediately confirmed that plans to develop the nation's supply of trained manpower would be of the first priority in the development of education. However, a first priority is not an absolute priority. The Ministry of Education has, as one of the stated objectives of its programme in the plan, the aim 'to make every effort to ensure that the standards of quality in primary education are maintained at a level adequate to lay the foundations of permanent literacy for pupils who proceed no further'. Then there are the expectations of the ordinary citizen to be met; while he may well accept, with the President, that 'this policy (priority for trained manpower) means that some of our citizens will have large amounts of money spent on their education while others will have none', no political realist can expect him to accept that there will be no expansion of primary education in a country where only just over half the children have the opportunity to start school at all. Each of these objectives must be given some weight in formulating the education plan; the question is how much. The first stage in answering the question is carried out, explicitly or implicitly, when the assumptions are drawn up which relate the stated objectives of the plan to the educational quantities from which the education programme is constructed.

The first task which must be carried out is the determination, in educational terms, of the demands to be placed on the educational system by the adoption of the trained manpower objective of the plan. The second task is to make sure that the other recognized objectives, such as social objectives, are provided for within the available resources and in accordance with agreed priorities.

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[1] Address by President Mwalimu Julius K. Nyerere on the Tanganyika five-year plan and review of the plan. (Address to Parliament, 12 May 1964). Dar es Salaam, Tanganyika Information Services, 1964.

## Manpower requirements and educational objectives

The process leading to the formulation of a manpower-based educational plan requires: (a) the conduct of a manpower survey to ascertain the current levels of employment in the various high and middle-level manpower categories; (b) the formulation of the assumptions underlying the method of forward projection of manpower requirements and the projection of requirements in the various categories; (c) the correlation of these manpower requirements with educational requirements for new entrants to the labour market.

## The manpower survey

In carrying out a manpower survey certain assumptions must be made (such as the one regarding the percentage of the labour force covered by the survey). If the results of a manpower survey are accepted as a basis for government policy, so, too, are the assumptions which were made in gathering and processing the information. Alternatively, the government may wish to alter one or more of the assumptions which have been made in preparing estimates. Relatively small changes in some of the assumptions may give raise to large changes in the resulting estimates, which in turn are used as a basis for policy. Because of this it is particularly important that those responsible for taking decisions are aware of the nature of the assumptions they are, by implication, being called upon to make. In the case of a manpower survey, they will probably seek guidance principally from the ministry responsible for labour and employment matters.

## Manpower projections and their educational equivalents

When we turn to the projection of manpower requirements, however, the nature of the problem is far more complex and the scope of the assumptions which must be made—given the current state of manpower forecasting as a science—is correspondingly wider. The person who is charged with responsibility for the development of education is also, by the terms of the plan, charged specifically with the task of meeting the manpower target of self-sufficiency by 1980. As a responsible minister of education, he must be a party to the formulation of the assumption which will, in turn, define his task. His interest is the greater because, while the adoption of excessively high targets for the production of high-level manpower may force him to curtail development proposals for primary education, the adoption of deflated target figures can just as effectively prevent educational development by prolonging the shortage of teachers.

In practice the assumptions about the methods of projection have not been separated from those which are made in the last stage of the translation of the plan targets into educational demands—that of the correlation of manpower requirements with educational requirements—inasmuch as the categories of manpower were distinguished for projection purposes according to the assumed educational requirements for entry to each class. Thus, in the two manpower projections which have been supplied to the Ministry of Education[1] the estimates were expressed in terms of 'jobs normally requiring a university degree' (category A), 'jobs which normally require from one to three years of formal post-secondary (form 4) education/training' (category B) and 'jobs which normally require a secondary school education for standard performance of the full array of tasks involved in the occupation' (category C).[2] The assumptions which had to be made in allocating jobs into these three categories were essentially assumptions about the characteristics of the output of the educational system and, as such, are of direct concern both to the Ministry of Education and to the manpower planners.

The position which has been reached in practice is that, given the data provided by the manpower surveys together with the acceptance of planning for the development of trained manpower as a key objective of the plan, further clarification still seems to be needed regarding the assumptions which have been used in translating these data and objectives into targets for educational development; it seems, moreover, that the machinery for making such clarifications could be improved.

## Limitations on the choice of methods for making projections

The choice of methods used for making projections is usually strictly limited by the availability of suitable data in any developing country; this was certainly the case in Tanzania, where it was well illustrated by the very simple model which was used

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[1] 'A Guide for the Ministry of Education in Preparing its Development Policies and Programmes', Ministry of Development Planning, September 1963, (unpublished), and *Survey of the High-Level Manpower Requirements and Resources for the Five-Year Development Plan 1964/65-1968/69* (Thomas report), Dar es Salaam, Directorate of Development and Planning, 1965.

[2] The use of these 'category' terms is, unfortunately, easily confused with the 'grades' of teachers. A teacher, grade A, belongs to category B, and grade C to category C, while grade B teachers are a borderline case.

TABLE 1. Estimated gross requirements (replacement and expansion) by level of education (cumulative from 1962) of the non-agricultural labour force[1]

| | Category A | Category B | Category C |
|---|---|---|---|
| Assumed annual percentage increase in total employment | 5.8 | 7.5 | 6.8 |
| Employment level in 1962 | 3 350 | 2 220 | 24 140 |
| Net increase required 1962-70 | 1 900 | 1 740 | 16 660 |
| Number required as replacements 1962-70 (retirement, death and Africanization) | 1 280 | 710 | 6 260 |
| Gross requirements 1962-70 | 3 180 | 2 450 | 22 920 |

SOURCE Unpublished data in Ministry of Education files

NOTE

1. It was pointed out by the Ministry of Development Planning that agricultural employers (as distinct from public authorities employing agricultural officers) employ few, if any, persons requiring high levels of education. Public servants are included in the table whether or not their work is concerned with agriculture

in September 1963 by the Ministry of Development Planning in the Guide for the Ministry of Education already referred to. In that instance the employment levels in the occupations covered by the Tobias survey obtaining in 1962 and forecast for 1967 were taken as data and classified according to the assumed educational requirements. Forward projections of manpower requirements were then prepared by simple extrapolation using the annual rate of growth implied by Tobias in 1962 for 1962-67[1] to estimate the demand in other years. This stage of the calculation gave rise to estimates of the required increase in employment at the different levels, to which estimates of withdrawals from the labour force were added to give estimates of the gross requirements according to level of education. The results are summarized in Table 1.

## Hidden assumptions of manpower projections

Before these projections of manpower requirements could be translated into educational programmes for costing, it was necessary to check them for consistency with the type (as distinct from the size) of the development programme likely to be proposed in the educational field itself. It was at this point that the limitations of a 'social growth' type of projection[2] of future manpower requirements from existing manpower supplies became more rapidly apparent; the Ministry of Education's proposal to bring about a phased withdrawal of post-primary (i.e., grade C teachers,

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1. Tanganyika, *Survey of the High-Level Manpower Requirements and Resources in Tanganyika, 1962-1967* (Tobias report), Dar es Salaam, Government Printer, 1963.
2. The phrase '"social growth" type of projection' is used to describe projections made on the assumption that for each category of manpower, employment should rise at a steady percentage growth rate which is directly, if not explicitly, related to such parameters as the rate of growth of total wage employment or of gross domestic product.

category C manpower) teacher training and to replace it with post-secondary (i.e., grade A teachers, category B manpower) constituted a change in the educational requirements for entry to a particular form of employment. This meant in turn that the measured base of 2,220 employed in category B in 1962 (see Table 1) could no longer simply be expanded by a percentage growth formula to calculate the requirement in 1970 because a significant part of the 1970 requirement for category B manpower would arise from growth of the teaching profession, whose members were nearly all counted among the 24,140 persons employed in category C manpower jobs in 1962.

Recognition of this fact did not lead to any simple alternative formulation of the growth assumptions on which the projections were based, if only because it was quite clear that a significant proportion of the teaching profession would continue to be found among category C manpower well after 1970. (Not only were there many serving teachers who could not be instantaneously upgraded, but also there would be a considerable number of grade C teachers qualifying between 1964 and the date when grade C training would finally be discontinued.) The adjustment which was made to the estimated requirement for category B manpower was an essentially pragmatic one, reflecting the practical possibilities during the plan period of progress towards the much longer-term goal of a teaching profession of which all the members would have had a secondary education. The finally agreed figure of 5,900 as the estimated gross requirement for 1962-70 for category B (compared with the earlier estimate, in the table, of 2,450) was based on the assumption that, by 1970, all new entrants to teaching would be grade A teachers (category B manpower).

The extent of this revision also served to emphasize the interest of the Ministry of Education as a user of manpower at this level, in addition to its responsibilities as a producer; although no further revisions were made to the plan as a direct result of revisions of the estimates of manpower requirements, it is still possible that a case can be made for doing so, if only because the Ministry of Education was by no means alone among employing departments having plans for development limited not only by financial considerations, but also by the shortage of suitable recruits for training at the post-secondary level. (The Ministry of Agriculture in particular had been similarly affected.)

## Caution required in the use of projections

Outside the public sector there may also be similar changes in job requirements taking place for the soundest of economic reasons.

In the section of his report headed 'Exclusions and cautions',[1] Tobias had made the point: 'Many employers told the survey team that they have installed, or are about to install, capital equipment of high productivity. They state that "cheap" labour is not "cheap" and that to continue to compete successfully in world markets, labour costs must be reduced by the use of more machinery. The net effect of these shifts may very well reduce unskilled and lower-skilled labour requirements and *increase* the need for highly skilled and technical workers above the anticipations in this survey. It is not at all certain that employers have fully thought through the educational and training implications of such a shift and it is not certain that they have stated high enough future requirements for technical and executive personnel.' It seems likely that the proposal of the Ministry of Education to replace post-primary trained teachers (category C) by post-secondary trained teachers (category B) is an example of a mechanism, analogous to that anticipated by Tobias, by which future levels of employment in categories where manpower has been particularly scarce can, and probably should, rise to meet the supply of candidates and not vice versa.

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[1] Tobias report, op. cit., pp. 23-24.

Once secondary school leavers become available in adequate numbers, category C teachers who retire are replaced not by more category C teachers, but by category B (post-secondary trained) teachers. This could happen also not only in other public service occupations, but in the private sector as well, although the mechanism is apparently somewhat different. Whereas in the past it may have been judged to be economic to pay the expatriation costs of category A manpower, it must have been comparatively difficult to justify the payment of the same expatriation costs per unit of category B manpower, since each man might be assumed to be making a somewhat smaller economic contribution. Thus if, as an arbitrary example, the case is considered for an expatriate from a European country where category B salaries in his occupation are 70 per cent of category A salaries, the cost of the category B employee, once expatriation costs of passages, housing and pay addition are included, might be as high as 85 per cent of the cost of a category A employee. There is, therefore, an incentive to economize on category B appointments until local supplies of manpower become available.

By using, as a baseline for projection of requirements, the actual employment levels in each manpower category in 1962 (just after independence and before the secondary school expansion policy of the years from 1960 onwards began to bear full fruit in increased outputs), one should therefore expect to underestimate the number of category B opportunities which would exist in the economy at its 1962 level of development. The backlog of requirements only partially fulfilled (by the employment of category C manpower or by the employment of smaller numbers of category A manpower to fill the gaps) would deflate the initial estimates; the error in estimating future requirements would then be compounded when present supply is used as the baseline for a percentage growth model of estimating future requirements.

While this particular analysis of the reasons that category B manpower requirements may have been underestimated is perhaps only a partial explanation, there are nevertheless other indications that there is in fact such a shortage. Tobias, in his survey,[1] went on to observe that 'the fact that there were only 1,152 craftsmen employed in all of construction is due *in large part* (author's italics) to the strictness of the definition applied in this survey—"fundis" were not included as construction craftsmen unless they had the full requisite training and experience needed to satisfy the definition as given . . .'[2] This, it seems, could quite properly be read as a reservation about the use of his survey's census-type data as a basis for projection, since it implies the expectation that 'fundis' will be progressively replaced by craftsmen with a background of formal training. A forecast of future requirements should, therefore, include not only growth and the replacement of existing manpower, but also the replacement, by upgrading of the educational qualifications, of manpower in lower categories.

## Revision of the manpower estimates (Thomas report)

The Thomas report of 1964 shows total requirements for input to category B (including teachers) not of 5,900 for 1962-70, but of 6,562 for the shorter period 1964-69; it also shows that of the estimate of 6,562, less than 1,000 were attributable to projected employment outside the public sector. (This figure would, however, rise to nearly 1,300 if it were assumed that a quarter of the requirements for trained agricultural field officers and field assistants would enter the private sector.) It appears, therefore, that, between the times of preparation of the two surveys, an increasing number of potential requirements for category B manpower had come to light in the public sector along with the realization that secondary school outputs were at last increasing, but that the private sector may not yet, in Tobias' words, 'have fully thought through the educational and training implications. . . and it is still not certain that they have stated high enough future requirements for technical and executive personnel.'

In the private sector category 'Directors, managers and working proprietors', there is no provision at all, in an estimated requirement of 625, for any category B manpower; it is assumed that one out of four will be category A and the remainder category C. Finally, there is already evidence, at the time of writing, that the employment opportunities open to secondary school leavers are increasingly concentrated on the potential entrants to category B. Thus, in the public sector

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[1] Tobias report, op. cit., p. 25.

[2] Tobias defines a 'fundi' in a footnote thus: 'Swahili for "expert" –usually self-taught craftsmen with little or no mathematics, languages, drafting or technical training.'

TABLE 2. Estimated manpower requirements for categories B and C compared with opportunities in the public service

| | Category B | Category C | Ratio |
|---|---|---|---|
| Public service opportunities 1965 | 1 569 | 675 | 2.32:1 |
| Estimated requirements 1964-69 (all sectors) | 6 562 | 17 262 | 0.38:1 |

SOURCES
Central Establishments Division, Office of the President, and Thomas report

it is estimated that of 3,049 opportunities for Tanzanian citizens completing the school certificate course, approximately 485 will ultimately enter university and qualify for entry to category A; 320 will continue their formal education, but will not enter category A; of the remaining 2,244 opportunities, only 675 would appear to be category C, since pre-service training is specified for the remaining 1,569 opportunities.[1] Even if it is assumed that a proportion of the pre-service training courses are so short as to disqualify participants from classification in category B, these figures are in stark contrast with the proportions indicated between the total requirements for categories B and C by the 1964 survey for the period 1964-69, which are set out in Table 2.

The category B public service total is inflated in comparison with the category C total in that it refers to pupils who will actually enter employment later than the category C entrants (the difference being the average length of formal training course for category B entrants). Even so, it is an impressive figure. The category C figure would seem correspondingly depressing until it is remembered that the public service has, naturally, already reached a more advanced stage of its development of local cadres at this level because, by definition, the supply of manpower became available earlier.

Another feature of employment opportunities at the end of 1965 is the high level of demand for school leavers who will have completed the higher school certificate course (two years' continuation of formal education beyond the level required for entry into category C). In this instance there will only be about 180 Tanzanian citizens not continuing to university, but the public service alone is offering 334 opportunities.

Details of opportunities in the private sector are by no means complete; such information as is available indicates a slightly different pattern. The expressed demand here is mainly for school certificate leavers (90 per cent of a total of just over 400 opportunities known to the Ministry of Labour six months before the pupils complete their school course) but, significantly, the descriptions of the opportunities nearly all specify academic requirements which would easily qualify the holders for entry into category B (at least!).

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[1] Figures collected by the Central Establishments Division of the Office of the President for circulation to prospective employers and to schools (Reference EB.9/53/236 of 7 June 1965).

Educational planners must have a dual interest in manpower projections, arising both from the schools' responsibility to adapt, in time, to revisions of the targets and from the need to ensure that the supply of potential teachers is adequate. If, as in the case of category B, it seems to the education planners that the future requirements for one or more particular categories of manpower have been wrongly estimated, they are in a position to be among the first to draw attention to the issues at stake and to seek an early revision of the planned allocation of resources; indeed, if they do not do this, it is difficult to see how those whose concern is essentially with manpower and financial planning can be expected to produce a practical plan. Moreover, when the anticipated shortfall is to be found in the very category of manpower from which the great majority of teachers must be drawn, any ministry of education has a justifiable special interest in seeking appropriate revisions to the plan. It is, of course, a separate issue, on which endless discussion is possible, as to the extent to which the schools and colleges or the employers should carry out the task of converting category C into category B personnel by extension of their period of education and training. Nevertheless, it is always the proper concern of the educational planner to seek such adjustments of the plan (or policy changes for future plans) as are necessary to ensure that there will be a sufficient supply of pupils suitable for entry into courses which lead to category B occupations.

## Possible revisions in educational planning

In practice this would suggest that there should be rather more expansion of secondary school facilities at the immediate post-primary level (form 1) so that the number who can be brought to a state of readiness for entry into category B jobs can be increased. While it is true that improvements in selection techniques, in the development of more broadly based curricula and in class-room teaching should give some improvement in the proportion of all secondary school entrants who qualify to enter category B rather than category C, it seems unlikely that an adequate number can be found from the present system to fill the category B posts satisfactorily.[1] The immediate objection to this proposal is that, as footnote 1 indicates, more category C output would arise together with the additional category B if it were adopted—and there might not be a demand for this extra category C output; indeed it could be argued that additional category B output would be welcome provided that it was produced instead of a larger amount of category C output. However, as long as high and middle-level manpower only is under consideration, the objection can be countered. If the argument for transfer of jobs from category C to category B holds, so too by induction will the analogous argument for transfer of jobs from category D[1] to category C. (One way of picturing this change is that more crafts would come into the category 'modern crafts' used in the survey.) It seems reasonable to assume that such transfer over time from category D to category C will at least partly offset the transfers from category C to category B. If the assumption were made that a fixed proportion of jobs in each category should be transferred upwards each year, the net result would be no reduction in category C requirements unless category D were in fact smaller than category C. There are no figures given in the Thomas report to indicate that this is necessarily so.[2]

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[1] Although nearly all pupils who enter now complete the four-year secondary school course, the proportion who would reasonably be assessed by employers as meeting the 'potential' requirements for category B is probably not higher than 50 per cent, and from this 50 per cent the potential entrants to category A must be selected.

It is interesting however to note further that if the size of the category C requirement did not increase as fast as the supply resulting from the increased secondary school output, then a shift in relative earnings could be expected. While category B earnings would perhaps retain the same relationship to average earnings, category C earnings could be allowed to fall (relatively). The current policy on wages and incomes in Tanzania encourages trends such as these;[3] it could be argued that, by reducing the cost of employing a category C secondary school leaver in this way, he would in effect be made to repay some of the public investment made in his education; at the same time a pupil who has the choice of entering either category B or category C would have an additional incentive to conform to national manpower priorities.

## Productivity assumptions in relation to educational qualifications

When the questionnaire approach is used to estimate future requirements, the replies will reflect only those changes in the assumptions relating educational qualifications to occupational requirements which have already been anticipated; the replies cannot reflect all the changes that will happen, partly because, as Tobias suggests, some concerns will overlook this factor, and partly because new concerns will enter the labour market. However, it is already clear, especially in Tanzania, where the public services employ such a high proportion of the nation's stock of skilled manpower, that the questionnaire method (as employed by Thomas *et al.* for the public sector in preparing his report) is superior to the simple mechanical extrapolation of growth rates over a period of radical political and social change (as supplied to the Ministry of Education in the earlier 'guideline'). The latter method fails to take account of deficiencies in the existing manpower structure and compounds the errors by an oversimplified extrapolation procedure.

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[1] Described in the Thomas report as skilled manual workers who 'require a fairly high degree of manual skill, but do not require the more extensive educational base called for by "modern crafts". They (were) not therefore shown as a charge against secondary outputs.'

[2] Although category D as enumerated in the Thomas report is much smaller than category C (4,060 compared with 20,910), category C covers skilled office and skilled manual workers while category D covers only the latter; thus the figures are not comparable for the present purpose.

[3] By raising the minimum wages of employed persons while freezing the incomes of those in the higher income brackets.

A third method of establishing projections of manpower requirement is, however, in fairly common use. This method, which was used to estimate future requirements in the private sector in the 1964 survey, involves the calculation of future employment levels in each of the broad industrial divisions for which output projections were given in the five-year plan; this was done by applying an assumed productivity (per man) increase to existing average levels of gross domestic product per employed worker to give total employment, and then constructing an occupational matrix for each of the broad industrial divisions, assuming that each specific occupation (which could be classified as category A, B, C, etc.) would constitute the same proportion of employment in the industry in 1970 as it did in 1964.

To educators, who reasonably hope that education is one of the factors giving rise to improved productivity, it seems that this method avoids the pitfalls of omitting new concerns, only to introduce, by implication, very questionable assumptions about the relationship between the productivity and the educational qualifications of the labour force. Not only must one ask whether the present manpower deployment according to occupational category will be the most productive under the labour supply conditions in the years ahead; it must also be asked whether the assumed productivity improvement per man applied to the whole of the labour force can, in practice, be achieved without a related increase in the proportion of productive tasks which can only be carried out by middle and high-level manpower.

In the case of the 1964 survey the choice of a productivity increase of 2.5 per cent per annum compounded is described as fairly arbitrary. The figure is compared with 2.6 per cent per annum compounded for the United States of America over the years 1929-61, 4.4 per cent per annum compounded projected for France over the period 1959-70 and 1.0 per cent per annum compounded for Uganda for 1952-62. One possible explanation of the higher figures found or projected in the 'modern' economies of U.S.A. and France could be that greater shifts in the education/occupation matrix have occurred in these countries through the raising of the initial entry qualifications for specific high and middle-level tasks than in Uganda and that these shifts are, in those countries, linked with the higher rates of productivity increase. If this is so then a lower figure (which might well be the

Uganda figure of 1.0 per cent per annum) should have been assumed for Tanzania since no changes in the level of educational qualifications needed for entry into specific occupations (other than teaching) were postulated.[1]

The potential change in the relationships between education, occupation and output. which must occur against a background of changing economic conditions and changing content of education, is an important subject which requires detailed research before it can be incorporated with confidence into manpower forecasts. In the meantime forecasts must be used but, given the current hazards of manpower forecasting, the educators who have the responsibility for meeting the *de facto* manpower requirements in the future will need to understand the nature of the forecasts' assumptions and their inter-relations. Only by doing this and by participating fully in the process by which the education targets are set, can they be sure that extreme, or even mutually exclusive, assumptions are being avoided.

On the other hand, no education target can be reached without adequate resources, whether they are teachers, pupils qualified to benefit from the education, money or organization; without these, any argument as to whether the manpower targets are set high enough when translated into educational terms is largely academic because frustration is unavoidable. The importance of the manpower target in educational planning is therefore to be found not so much in limiting the rate of expansion of schools to precisely calculated outputs as in keeping the policy-makers fully informed about the extent to which the various parameters associated with economic development are reflected in the educational programmes.

A manpower target associated with the assumptions upon which it rests is today an irreplaceable element in educational planning as an indicator of priorities. The state of manpower forecasting, as distinct from manpower surveying, as a science is, however, still reflected more accurately in the wide divergence between estimates arising from different assumptions than in its value in determining precisely the rate at which educational developments should take place. This latter rate is probably still best determined by the availability of the necessary resources for educational development, provided that the manpower assumptions which must be made in generating the corresponding projections of employment are in close accord with the economic, social and political objectives of the development plan.

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[1] It is, for example, frequently observed that improvements in office efficiency in Tanzania must await the time when the normal intake to clerical positions will consist of secondary school leavers with relevant vocational training. Such a change would probably increase the proportion of category C manpower expressed as a percentage of the total labour force; by way of contrast the Thomas report can be interpreted as implying that a relatively high productivity increase can be achieved without raising the educational and training standards for entry into various kinds of employment in the private sector, a conclusion which would contradict everyday observation.

## Reconciliation of manpower targets with other objectives of educational programmes

If it seems that undue attention has been devoted to the determination of manpower demands on the educational system, it should be remembered that this is due partly to the novelty of the procedures and, indeed, to the current fashion for employing them. Projects to cope with the other type of educational demand, which might be termed 'popular' rather than 'economic', must also feature in a plan if the plan is itself to be popular—but the criteria by which popular demand is assessed and the extent to which it ought to be met are subject to even wider differences of opinion than manpower estimates! There seem to be two main alternatives. Either some set of targets, such as the 'Addis Ababa targets', is adopted and the planning problem is reduced to determining the rate at which they can be achieved, or a more piecemeal approach is adopted, as in Tanzania where it is reluctantly accepted that, for reasons of cost, the primary education targets expressed at Addis Ababa are, for the present, irrelevant for medium-range planning purposes. The objectives for primary education in Tanzania can be summarized thus: (a) to fulfil all obligations implied by government approval of developments already carried out; (b) to transform the existing primary school system into one of higher quality which will be a more useful instrument of development; (c) to estimate, by political judgement, the desirable rate of expansion of the primary school system, bearing in mind that the manpower development programmes in post-primary education have economic priority, and to make provision accordingly.

There is an advantage in this latter approach in that it lends itself well to the presentation of planning choices not only as over-all priorities (e.g., manpower development taking precedence over education as a social service) but also as priorities at the effective limit of resources. Thus, when the decision-taking process is under way, a rational choice between the political and social value of £100,000 worth of identifiable primary education and the economic value of £100,000 worth of identifiable university places can be made.

In practice, therefore, the economic and social targets for education in a plan cannot be set finally in the early stages of planning, but the terms in which they are to be expressed can be set down with some precision. When, in the face of limited resources, difficult choices have to be made between several desirable objectives, then—with cause and effect illustrated as clearly as possible—the final targets can be drawn up by altering the quantities but not the qualities of the earlier drafts.

# 5 The process of decision in educational planning

The process of decision in educational planning falls into two distinct parts. First, there are the decisions taken by the educators themselves as to what proposals they should make in their draft proposals in response to the objectives which they have been set; second, there are the decisions and modifications which must be made subsequently to ensure that the proposed educational development plan represents a justifiable claim upon the national resources during the period of the plan.[1]

## Preparation of proposals

Recognition that there will almost certainly be a need for a subsequent revision, due to financial or political constraints, of the educational and social targets adopted for a plan must not be allowed to prevent the drawing up of educational programmes to conform to provisional targets. In Tanzania the sequence followed in translating economic (i.e., manpower) and social objectives into programmes for expanding enrolments at the various levels of education is to:

1. Prepare a projection using enrolments in existing secondary schools as a guide, showing the maximum number of graduate (or graduate equivalent) persons who can be expected to enter the labour force during the plan period.
2. Establish whether a similar rate of expansion of university intakes in the later years of the plan (i.e., students do not become employed until a later planning period) is likely to meet, exceed or fall short of long-term manpower requirements and adjust accordingly.
3. Prepare a projection of entries to form 5 (higher school certificate and university entry) which is expected to produce the required number of university entrants.

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[1] And also to ensure that the next generation of planners is not swamped with inviolable commitments at the beginning of the next plan.

4. Prepare a projection of entries for secondary schools (form 1, school certificate course) which implies a steady growth of secondary school provision towards that required to meet long-term targets (1980). (Increased entries to a four-year course have hardly any effect upon manpower outputs during the course of a single five-year plan period.)
5. Prepare projections of the number of entries to other post-secondary courses (i.e., teacher training and technical education) having regard both to the demand for the products and to the supply of candidates.
6. Prepare projections of the primary school enrolments required to meet the social development targets of the plan.
7. Draft proposals regarding the institutional and administrative framework within which, educationally speaking, the increased enrolment programmes can be implemented while obtaining best value for money spent.

There are two aspects of this 'best value for money' approach which may require particular attention:

First, it is certainly advisable to check on the relevance of the educational requirements, as formulated, to the occupations which pupils are expected to enter. Thus the fact that a secondary education has in the past been a prerequisite for entry into certain kinds of training cannot be taken to mean that the same secondary education is the best qualification in future. It is this kind of thinking which has led to the interest, now being incorporated into the development plans of individual Tanzanian secondary schools, in broadening the secondary schools' curriculum to make sure that those pupils who do not advance to the highest levels of education can become positive assets at the middle manpower levels (i.e., primarily category C) rather than mere 'fall-outs' from an academic rat race.

Second, there is the question of the finance and organization of the actual capital programme. There are obvious advantages to be gained from planning for a steady, or steadily rising, rate of construction which are associated both with the capacity of the construction industry and with the evolution of progressively improved plans for implementation. It should also be a further advantage, when aid from external sources is to be sought to carry out the plans, to be able to draw up a financial programme showing how the phased requirement for funds is related to the programme for achieving the plan targets.[1]

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[1] It must, however, be recognized that the apparent tendency for some aid agreements to be limited by one or more parties to the short-term militates against the careful phasing of development plans: under these circumstances the greater value of the carefully phased programme may well be the light which it can throw on the future commitments to recurrent expenditure which the government itself is undertaking.

## The cost of the plan

Once these steps have been taken planning must proceed to the next stage, which does not involve the educators alone; it is the educational planner's duty to estimate the cost of the plan as drafted, using the best available estimates of future unit costs as a basis for the estimation, but it must then be submitted, together with plans similarly prepared by other ministries and departments, to the Economic Development Commission (EDC) as a claim on national resources during the planning period under consideration. The EDC would have before it at this stage not only the projected budgets of the various ministries and departments but also forward projections of economic growth and of the resulting government revenues. These projections, like the projections of expenditure, would be based on stated assumptions and subject to scrutiny by the EDC, which would therefore be in a position to relate the cuts in expenditure (which it would have to approve in order to contain expenditure within the limit of funds likely to be available)[1] to the consequent cuts in the activities of the various ministries and departments which would have to be made.

The EDC would need to be advised on the cuts which it should consider in order to balance the books, and would naturally expect the economic advice on the choice of cuts to emanate from the ministry responsible for economic planning, so that the economic viability of the over-all plan is retained after its amendment. Similarly the plan must also be financially viable and it follows logically that the proposals for modification of the arrangements by which government activities in development are to be financed should emanate from the ministry responsible for public finance, i.e., the Treasury.[2]

Similar comments can also be made about the way in which any ministry's programme should be modified; health, agriculture, communications and education are only some of the examples. Naturally if the EDC were faced with a host of possible variations to each ministry's proposed plan, it would be unable to function effectively and the chance of producing a plan which is economically and financially viable would be greatly reduced. In order to avoid this hazard, a procedure was introduced by which each ministry was required to discuss possible amendments to its draft plan at civil servant level with representatives of the Ministry of Development Planning, Treasury representatives invariably being invited to attend. If the civil servants reached an agreement to which their respective ministers gave support, the matter was settled; but, if agreement was not reached, as in the case of the education plan for 1964-69, discussion had to continue and points of difference had to be discussed in the EDC, i.e., at the political level.

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[1] 'Funds likely to be available' will of course differ from revenue projections according to the amount of money to be raised outside the country, the amount needed for consolidated fund services and the degree to which it is planned to budget for a surplus or deficit on current account.

[2] In some countries the responsibilities for planning and finance are brought together within a single ministry, but this is not the case in Tanzania where the Ministry of Development Planning, later to become the Directorate of Development and Planning under two Ministers of State in the President's Office, is distinct from the Treasury, which is the responsibility of the Minister of Finance. A more recent change, by which development planning functions were transferred to the new Ministry of Economic Affairs and Planning, has left this situation unchanged.

It is probably simplest to trace the resolution of these differences by reference to the successive modifications which were made to the projections of recurrent expenditure on education over the five-year period, as prepared by the Ministry of Education and incorporated in the first draft of the plan, which was used as the basis for the initial inter-departmental meeting. These successive modifications are set out in Table 3.

TABLE 3. Successive modifications to estimates of recurrent expenditure on education 1964-69

| | (£ thousand) | |
|---|---|---|
| *Gross cost of first draft plan* | | 58 191 |
| (a) *Amendment* by deduction of non-government revenues for primary education other than fees | | |
| Local authority contribution | 7 706 | |
| Voluntary agency contribution | 1 062 | 8 768 |
| | | 49 423 |
| (b) *Agreed cuts* of | | |
| (i) Upper primary school programme | 2 540 | |
| (ii) Government finance for secondary school programme | 504 | 3 044 |
| | | 46 379 |
| (c) *Amendment* by deduction of anticipated collection of primary school fees | | 3 500 |
| | | 42 879 |
| (d) *Amendment* by agreed re-interpretation of unit costs | | |
| (i) Primary education | 1 975 | |
| (ii) Secondary education | 400 | |
| (iii) Administration and general | 121 | 2 496 |
| | | 40 383 |
| (e) *Amendment* by agreement to reduction of programme, reached by EDC sub-committee | | |
| (i) Primary education | 125 | |
| (ii) Teacher training | 643 | |
| (iii) Technical education | 429 | 1 197 |
| | | 39 186 |
| (f) *Amendment* by assumption of EACSO contribution to costs of higher education | | 852 |
| | | 38 334 |
| (g) *Amendment* of assumptions giving rise to anticipated savings : | | |
| (i) Introduction of '7:4 system' (primary)[1] | 400 | |
| (ii) Modified requirement for falling unit costs in higher education | 80 | |
| (iii) Assumption of additional non-government finance for secondary education | 98 | 578 |
| | | 37 756 |
| (h) *Amendment* of the assumed contribution to be made by local education authorities | | - 2 250 |
| *Net recurrent cost to the government as published in the five-year plan* | | 35 506 |

SOURCE Ministry of Education

NOTE

1. That is, a change from a system in which eight years of primary education are followed by four years of secondary education to one in which the length of the full primary school course is reduced to seven years

## Priorities

In requesting the first submission of a draft development plan from the Ministry of Education, the Ministry of Development Planning requested an analysis of the gross cost of a plan designed *primus inter alia* to meet the manpower targets expressed in educational terms by its own Manpower Planning Unit. In response to this request a draft was submitted forecasting a gross recurrent expenditure of £58,191,000 and a gross capital expenditure of approximately £25 million; this draft plan was designed to meet the manpower targets, as assessed by the Manpower Planning Unit with modifications only to allow for the proposed upgrading in the draft plan of educational qualifications for entry into the teaching profession, and also to meet what were regarded as politically minimal requirements for the expansion of the publicly financed primary school system.

It was immediately obvious to the Ministry of Development Planning that an expenditure of this order could not be sustained as part of a balanced development plan for the country. First, it was suggested that the planned expansion of primary education was not in accordance with the manpower requirements of the country (in addition to which doubts were expressed about the availability of teachers to implement the plan). Second, it was contended that the financial implications of the plan were such that, even if they did not arise from overpricing the programmes, the 'realities' of the financial situation had to be recognized. It was also at this point that the importance of forecasting the revenue available for primary education from non-government sources was explicitly recognized by inviting the ministry responsible for the affairs of local authorities to submit a projection of the local authorities'[1] ability to contribute towards the cost of education.[2] At the same time, the opportunity was taken to deduct the element of voluntary agency contribution which was included in the estimates of gross unit costs on which the plan was based. These reductions together reduced the over-all estimate to £49,423,000 (amendment (a)).

The other issues raised at this stage were more difficult to dispose of. The case put forward by the Ministry of Education for primary school expansion did not rest on manpower grounds, but on the need to provide an adequate 'base' for the selection of secondary school pupils and on the associated public demand for extension of upper primary school facilities, so that opportunity would be spread more widely, if not actually increased; the extension of upper primary school facilities was, in terms of enrolments though not of cost, already incorporated as a central feature of the three-year plan for 1961-64 (the enrolment in standard V had increased from 21,600 in 1961 to 40,500 in 1963) and there was no evidence that the local authorities would be satisfied, once new standard V classes were opened, to make only limited provision for the more expensive education in standards VII and VIII.

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[1] This responsibility was carried at that time by the Ministry of Local Government and Housing.

[2] The estimate submitted was based on the assumption of an annual increase in revenues available for education of 7.5 per cent.

The questions raised by the Ministry of Development Planning at this stage regarding the pricing of the programmes were concerned with demonstrating the possibility that the methods of implementation proposed by the Ministry of Education were not in fact the most economical ones applicable to achieve the enrolment targets. However the tentative proposals put forward which concerned professional practice (such as the possibility of reducing pupil-teacher ratios in primary schools by cutting out the one 'extra' teacher allowed in schools where standard VII and VIII classes are being prepared for entry into secondary school and where, if nowhere else, some allowance must be made in the school time-table so that every teacher does not have to teach all the time) or administrative arrangements[1] were not tenable in practice and had to be abandoned. It was further maintained that the task of determining how education plans should be implemented was clearly that of the Chief Education Officer, who is responsible to the Minister of Education, whose duty it is in accordance with the Education Ordinance of 1961 to present a suitable development plan to the EDC.[2]

The differences which still had to be resolved were considerable, but there was one area where political, educational and manpower priorities did converge. As a result (amendment (b) (i)), it was agreed under political guidance that a part of the upper primary school development programme (that by which standards VII and VIII would be allowed to develop at a higher rate than standards V and VI so as to reduce the number of pupils leaving school after standard VI and to increase further the number of candidates for secondary school entry) should be omitted. At the same time (amendment (b) (ii)), proposals for anticipated external and voluntary agency assistance with the recurrent finance of secondary schools were incorporated in the estimate which was thus reduced to £46,379,000.

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1. It was suggested, for example, that a suitable filtering procedure could be devised whereby the total enrolments in standards V to VIII could be prevented from rising; there was no corresponding suggestion as to how the pupils lucky enough to survive the annual selection process could reach new schools far from their homes, or how additional boarding accommodation should be financed.
2. The Education Ordinance of 1961 (paragraph 3) gives the Minister for Education responsibility 'for the promotion of education and for the progressive development of schools in the territory'.

## Financial limitations

It was at this stage that the first draft of the National Development Plan was submitted to the EDC for consideration. It incorporated a proposal that the Ministry of Education would, by means of a net recurrent expenditure of £33,500,000 and a net capital expenditure of £14,000,000 (£17,800,000 gross), achieve the manpower targets necessary for development.

It was, however, calculated by the Ministry of Education that approximately £38,000,000 of government recurrent expenditure would be needed simply to maintain existing services with expansion limited to that which had already been approved in principle,[1] if the unit costs upon which the estimates were based were correct. While adjustments to the cost estimated could and should be undertaken as a matter of urgency, it was contended that cuts in the education programme itself must be a matter for political decision. The chairman of the EDC directed that there should therefore be an inter-departmental re-examination of the unit cost estimates and that any outstanding points of disagreement should be referred to an *ad hoc* sub-committee of the EDC for resolution.

By this stage of the process (February 1964) the time factor was pressing very hard indeed upon all the participants. The basic cost data used by the Ministry of Education were nevertheless subjected to re-scrutiny by both the Ministry of Development Planning and the planning unit of the Ministry of Education. Even if the resulting two sets of reasons given for proposed reductions in the unit cost estimates did not show a close correspondence to one another, the fact remained that reductions were proposed on both sides. Those about which agreement was reached (amendment (d)), together with an estimate of primary school fee revenue[2] (amendment (c)), were incorporated in the over-all estimate, which was thus reduced to £40,383,000.

The largest part of the unit cost reduction was agreed as a result of a clearer understanding of the nature of the projection of the salary estimates for primary school teachers. The projection had been based on estimates of the actual salary bill in 1962[3] distributed according to the 'approved' staffing formula over the range of the primary school from standard I to standard VIII. When drawing up the early drafts of the plan it had not been appreciated by the Ministry of Education that the maintenance of the 1962 level of average salaries (at 1962 prices) throughout the period of expansion from 1962 to 1969 would be called for only if the age structure of the teaching force remained approximately constant. In fact, the teacher supply position was such that the proportion of young teachers was bound to rise and also such that at least a temporary rise in the number of underqualified teachers (i.e., grade C where grade B or grade A were required by the establishment formula) was inevitable. Unit costs per class could therefore be expected to fall below the 1962 level, even if a significant recovery could be produced later in the plan period by the expansion of grade A teacher-training facilities.

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[1] The government was already a party to an agreement to provide recurrent finance for the development of the University of East Africa and, in the schools, there was a large number of 'streams' of pupils which had been opened under the three-year plan, but which had not yet been developed to their full duration.

[2] It was, by this time, clear that no major change in primary school fee policy, corresponding to the abolition of secondary school fees with effect from January 1964, was contemplated in the prevailing circumstances.

[3] The change-over to local authority administration of primary education has necessarily entailed the late submission, or non-submission, of financial statistics by almost all local education authorities. It was not possible to complete an analysis of 1963 expenditures until November 1964, eight months after the cost analysis for planning purposes was undertaken.

With the teacher-training programme designed to restore the staffing strength of the schools to the 1962 level by 1969 and to prepare for major improvements thereafter, it was possible to make the assumption that the average salaries would rise from their depressed 1964 level (which could be very roughly estimated) back to the 1962 level by 1969, thus reflecting the restoration of staffing standards. This calculation which led to agreement to reduce the estimates by £1,735,000 out of £1,975,000 for primary education (the remaining £240,000 was connected with boarding costs) was, however, far from being wholly satisfactory and led to suggestions that future salary calculations would best be made with references to the salaries and numbers of teachers entering and leaving the profession.[1]

A £400,000 reduction in the estimated expenditure on secondary education was made 'in the interests of reaching agreement' and with the reservation that it should be subject to annual review by the Treasury. While the argument was not made explicit in writing at any stage, it is reasonable to assume that the possible applicability of an argument analogous to that used for primary education was borne in mind by the representatives of the Ministry of Education at the discussions.

There was also a reduction of £121,000 made in the estimated expenditure on 'administration and general', a category which includes the expanding inspection services, the salaries of an administrative staff which has been expanded in response to the needs for closer contacts at local level and a subvention to the newly established Tanganyika Libraries Board. The need for an immediate increase in expenditure was recognized, but the rate of its subsequent increase was restricted to 3 per cent per year, unless the increase were achieved by savings elsewhere.

There remained the possibility of further reductions in the plan provided that agreement to the cuts was achieved at the political level. Reference of the subcommittee of the EDC set up for the purpose still did not produce a financial reconciliation. The gap was still nearly £7,000,000 and the cuts to which the subcommittee agreed (amendment (e)) amounted to only £1,197,000 (£125,000 for a further slight reduction in the number of classes in standards VII and VIII;

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[1] See, for example, J. B. Knight, op. cit.

£643,000 for reductions in teacher training arising partly from the primary school cut but mainly from the excision of a proposal to train untrained teachers serving in schools outside the publicly financed education system; £429,000, agreed after the EDC sub-committee meeting, as a reduction in expenditure on technical education resulting from a proposed delay in the expansion of post-secondary technician training facilities and the transfer of a technical school to become a secondary technical school, thereby to be accommodated within the established budget for secondary education).

The remaining gap of about £5.7 million was fortuitously narrowed by the publication of the University Grants Committee Report for the University of East Africa, which could be interpreted to imply a reduction in unit cost per Tanganyikan student worth £852,000 over the five-year period (amendment (f)), and by the communication, apparently issued on the basis of financial analysis,[1] received by the Ministry of Education from the Ministry of Development Planning stating that the projected government recurrent expenditure on education over the five-year period 1964-69 would be £35,506,000. There remained a gap of £2,823,000 to be closed.

Reference back to the political authorities brought the response that the Ministry of Education should do the best it could with the proposed allocation of recurrent revenue. Only one prospect of a further reduction of unit costs seemed to offer any hope; it was clear that the *per capita* costs of university students overseas were on average about £250 per annum below those of students at the University of East Africa even when, towards the end of the plan period, considerable economies of scale could be expected to set in in East Africa. The government was already committed in full to the three-year development programme up to 1966/67 at the University of East Africa and it would obviously be uneconomical to reduce the intake of Tanganyikan students below the level which had been built up largely at government expense. The stipulation was therefore included in the plan that, unless the *per capita* cost for additional students from 1967 onwards fell below £850 per annum, the additional students would be sent overseas. This was, and still is, an unpopular stipulation; however, unless it is argued that university development within East Africa has absolute priority over all other educational development, a reasoned argument against it would be difficult to sustain. The consequent adjustment to the estimates of £80,000 (amendment (g) (ii)) may seem to be a token amount, but it is none the less important for that.

A somewhat similar amendment was made to the estimated expenditure on secondary education, by making the assumption (amendment (g) (iii)) that, of the ten secondary school streams to be added in each of the last four years of the plan, two were of slightly lower priority than the other eight. It was, therefore, assumed that a total of nine[1] streams should be opened only if non-government support were forthcoming or if unanticipated savings should accrue.

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[1] It is not known how this final figure given by the Ministry of Development Planning was arrived at. It is however possible that it was based on the figure shown in the first draft plan amended to take the loss of secondary school fee revenue (by abolition of fees) into account.

The estimates for teacher training were firmly rooted in the requirements for the supply of teachers, the estimates for technical education had been cut by an amount regarded by the Ministry of Education as being quite unrelated to the national needs for technical development and the estimates for administration, inspection and special services were already artificially low. Only the estimates for primary education remained as a remote possibility for further cuts.

The political constraint militating against further cuts was considerable—the sub-committee of the EDC had been unable to agree to cuts of more than £125,000 over five years—but a further cut, valued at £2,650,000, was necessary. It was also necessary, as the Minister of Education himself stressed, to ensure that the new plan did not generate such a large collection of forward commitments for those responsible for drafting its successor as that which had been bequeathed to it by the decision during the three-year plan period to forge ahead with the expansion of upper primary school facilities.

The first draft of the plan for educational development had proposed qualitative improvements in teacher training and in the primary schools in preparation for a change-over in the early nineteen seventies to a seven-year full primary school course instead of the eight-year course which was currently undertaken in preparation for entry to the normal four-year secondary school course. A calculated risk had to be taken by bringing forward the beginning of the change-over to the seven-year system[2] from the anticipated date of 1971/72 to 1965/66, thus reducing the capital cost of conversion of the system (because of its smaller size) and cutting down the anticipated rate of growth of recurrent expenditure due to further development by eliminating the commitment to open new classes at the standard VIII level. The risk was that, for a number of years, children who had not had the chance to benefit from the improved standards in the primary schools would be candidates for entry into secondary schools in such numbers that the quality of the secondary school intake would be lowered. If this happened, the quality of the subsequent entry into high-level manpower occupations would fall. However, the steep rise in the number of candidates for selection, which could not for financial reasons be matched by a corresponding proportional rise in the number of places for new entrants to secondary schools, was believed to be adequate to ensure that the quality of the intake would be little, if any, worse than that which would have resulted from the continuation of the existing 8:4 system, with a probably inefficient selection procedure after standard VI imposed as a financial necessity, and, consequently, a smaller number of candidates for selection.

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[1] The number 'nine' was chosen instead of 'eight' in view of the policy of developing relatively large schools, with at least three streams in each, so that donors interested in starting new schools might become interested.

[2] The possibilities of a 6:6 and of a 6:5 system, as well as of the 7:4 system now adopted, were each compared on financial grounds with the current 8:4 system before the decision was taken.

The 'unit cost per class' approach to costing indicated a saving of recurrent revenue of about £400,000 over the five-year period (amendment (g) (i)), but this estimate shows the limitation of this particular estimating procedure rather than the amount of saving that could logically be anticipated. A moment's thought will show that a switch from one system to another does not change the salaries of the serving teachers, nor does it necessarily immediately change the requirements for new teachers; what it does change, radically, is the distribution of teachers of different grades between the classes and therefore the average cost per class—not the total salary bill due to them, unless their numbers are altered. Amendment (g) (i) in Table 3 is therefore really spurious, although it is true that the future rate of growth of expenditure is reduced by decreasing the rate at which new teachers are required after the change-over—at the rates of expansion currently envisaged in Tanzania, this saving is about £30,000 per annum for teacher training and about £30,000 per annum each year cumulative for teachers' salaries; but the gap for the five-year plan period remained at £2,650,000.[1]

A proposal to raise primary school fees by 75 per cent would hardly have been politic; the choice was therefore between curtailment of the programme or reassessment of the contribution to be made by the local education authorities. In choosing the second of these alternatives and, by implication switching to the local authorities the liability for finding £2,650,000 (equivalent to about 35 per cent in addition to that indicated by the ministry responsible for local government as their maximum capacity), it was necessary to state clearly and publicity that the financial responsibility for the rate of expansion of primary education would rest in the long run with the local authorities. The fact that the government is making any addition to the local authorities' subvention payments for education is significant in improving its powers to co-ordinate development but the chance to influence the distribution of schools, in accordance with the declared social objective of the government to assist the poorer and more remote parts of the country, has been lessened. However, once the decision had been taken that the local authorities should bear an increased proportion of the financial responsibility for education, there remained only one thing to do: the subvention system was remodelled so as to reflect the priorities attached by the government in incentives offered to the local authorities to conform with the government's wishes.[2]

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1. Estimates of potential local authority expenditure based on the 7.5 per cent per annum increase formula already agreed had been increased by about £600,000 since the Ministry of Education had submitted its first draft. The real deficit was therefore just over £2,000,000.
2. Also discussed in Chapter 2 of this study and in J. B. Knight, op. cit.

## Conclusions

What practical conclusion can an educational planner outside Tanzania draw from this history? Perhaps it is this: the series of adjustments which are set out in Table 3 in order of their time sequence could instead be classified in another way (Table 4).

It is quite clear that great care must be taken, when gross unit costs are used as the basis for projections, to ensure that the assumptions being made about financial contributions from services other than the central government are made the subject of explicit agreement between all those concerned in reaching a final decision on the allocation of central government funds. Of the 'cuts' which were made in the programme 70 per cent of their value was 'achieved' in this way and only 19 per cent were made as a result of explicit political choice of objectives (and amendment (e), which alone was the subject of disagreement, accounts for only 6 per cent of the total value of the modification). The modification of estimates based on unit costs accounts for an adjustment of 11 per cent. This is as least comparable to that brought about by clear political choice. Thus there seems to be far more flexibility in the estimates than there is in the range of political (or professional) choice which can be based upon them.

A second conclusion, less obvious but no less important than the first, can also be drawn. None of the amendments made before the plan was published was an amendment to the manner in which educational processes are conducted; only one, the change-over to the seven-year system, was an amendment to the way in which education is organized. When a development plan is to be published as a programme on which a government must stake its reputation with its electorate, the effect of a limitation of funds which seems, to those responsible for its implementation, to be arbitrary in character, may not be to bring forth 'bold' or 'imaginative' schemes incorporating measures designed to transform the economics of education. On the contrary, the result of an arbitrary limitation is more likely to be a 'safe' plan of limited scope based on educational processes which are fairly well under-

TABLE 4. Modifications to estimates of recurrent expenditure (1964-69,) as in Table 3 classified according to type

| | (£ thousand) |
|---|---|
| Gross cost before modification | 58 191 |
| Net cost to the government after modification | 35 506 |
| Total value of modifications | 22 685 |
| Modifications by cuts in programme (amendments (b) and (e)) | 4 241 (19%) |
| Modification by refinement of 'unit cost' data (amendments (d) and (g)(ii)) | 2 576 (11%) |
| Modification by amendments to, or clarification of, arrangements for the finance of education (amendments (a), (c), (f), (g) (i), (g) (iii), and (h)) | 15 868 (70%) |
| | 22 685 |

stood (not least in their financial implications).[1] Necessity may be the mother of invention; but, unless a government is in the unlikely position of serving a people who will accept planning failures (or can be made to accept them), another offspring of necessity—caution—can be expected to be uppermost in its consideration.

Experiments may, by definition, not produce the expected results. It seems unreasonable therefore to expect a government, acting within financial limitations which preclude the achievement of some very modest objectives,[2] to expose its precious educational resources to the risk of experimental failure. The most that can be expected is probably 'pilot' experiments.

Fortunately, however, some countries engage in more experiments than consideration of their financial position might lead one to expect. The experiments must be chosen with an eye to the financial implications of failure as well as of success; they are therefore likely to be small in scale at first. Nevertheless the position is perhaps best summarized in this way; no ministry of education can be expected to adventure with its budget, but any ministry can be expected to foster experiments which could produce professionally viable changes as a basis for framing its future budgets. Financial stringency applied in advance over a period of years seems therefore to militate against radical changes in educational practice, unless an addition to the financial provision is made, contingent upon the conduct of 'experimental activities'. This has not been done in Tanzania, where forward estimates of recurrent expenditure are minimal. The risk is that, in applying all its available ingenuity to the problem of achieving the published plan targets with an absolute minimum of resources at its disposal, the Ministry of Education might fail to observe possible changes in educational practice which could transform the educational scene (and its economics!) in ten years' time.

The conclusion to be drawn from this relationship between financial limitations and willingness to experiment must be that a decision to experiment can only be meaningful if the corresponding decision to allocate resources for experiment is taken; indeed, that is why this discussion is found under the heading 'The process of decision in educational planning'. Without the decision to allocate resources for experiment, the experimenters' field is effectively restricted to those experiments which are cost-free (and which are, therefore, nearly always long-term in nature because the experimenters have full-time jobs to perform apart from their experiments) or which are conducted almost entirely by agencies external to the country; it is, to say the least, doubtful whether the consideration of cost, as distinct from possible, though not guaranteed, results should be of such paramount importance in determining whether educational experiments should be undertaken.

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[1] This situation is relevant not only when major transformations are being attempted, but also whenever any new institutional arrangements are under consideration. In such cases particular care must be taken to ensure that qualitative changes in the content or conduct of education do not invalidate the financial assumptions on which a plan is based; modifications to those assumptions are nearly always implied.

[2] It is, for example, difficult to allocate resources for experiment when they must be diverted from projects designed to achieve targets such as the 'Addis Ababa' targets, or the even more modest target of 'universal primary education' for four years.

One possible approach to the solution of this problem would be the establishment of an educational research council outside the Ministry of Education, with its funds coming from a government source also outside the Ministry of Education so that its claims do not have to be assessed in direct conflict with those of, say, primary education. Provided that such a council was empowered only to commission research projects and not to set up a permanent staff (which would probably merely result in the creation of yet another institutional interest to be mollified) it could, with suitable representation, act as a most useful catalyst to thorough educational inquiries.

# 6 The five-year development plan for education 1964/65-1968/69

In previous chapters of this monograph a number of topics have been discussed, all of them converging upon the central theme of the five-year plan for 1964-69. With the manpower targets set and the financial limitations settled, it is time to describe the actual plan which emerged.

Enrolment statistics for the period 1961-64 in each of the main parts of the education system are set out in Table 5. They are of particular interest as a back-

TABLE 5. Progressive development of enrolments, 1961-64

| | 1961 | 1962 | 1963 | 1964 |
|---|---|---|---|---|
| Enrolment of pupils: | | | | |
| Standard I | 121 386 | 125 521 | 136 496 | 140 340 |
| Standard V | 19 391 | 26 803 | 40 508 | 43 610 |
| Standard VIII | 11 740 | 13 730 | 17 042 | 20 348 |
| Total | 486 470 | 518 663 | 592 104 | 633 678 |
| Form 1 | 4 196 | 4 810 | 4 972 | 5 302 |
| Form 4 | 1 603 | 1 950 | 2 839 | 3 630 |
| Form 6 | 179 | 199 | 275 | 463 |
| Total | 11 829 | 14 175 | 17 176 | 19 897 |
| Students entering teachers' colleges for all initial courses, | 939 | 933 | 933 | 1 150 |
| of whom: | | | | |
| Students entering teachers' colleges for post-secondary courses (grade A and grade B) | 17% | 20% | 25% | 25% |
| Tanzanians in University of East Africa | 206 | 218 | 324 | 415 |
| Other Tanzanian post-secondary students (i.e., overseas students) (including universities) | 1 002 | 1 153 | 1 325 | 1 712 |
| Full-time engineering students at Dar es Salaam Technical College | 22 | 35 | 80 | 178 |
| Teachers in public primary schools | 9 885 | 10 273 | 11 100 | 12 044 |
| Teachers in public secondary schools | 664 | 746 | 886 | 939 |

SOURCE Ministry of Education

ground to the plan for 1964-69 since they show up those points of the system which were growing most rapidly at the beginning of the planning period, i.e., primary, standards V-VIII; secondary, form 6 and the University of East Africa. By way of contrast with enrolments at these levels, the enrolments in primary standard I, secondary form 1 and in teachers' colleges had been rising comparatively slowly. At the secondary form 4 level enrolments had risen very fast during 1961-64 but reference to the form 1 enrolments for 1962-64 showed that the increase would be small during 1965-67.

One of the most pressing problems which the planners had to solve was that of providing for the continuation of the education of the 44,000 pupils enrolled in standard V when the corresponding enrolment in standard VIII was hardly over 20,000. There were 1,115 classes open at the standard V level and only 548 classes at standard VIII. Even if it had been either possible or advisable to cut out all further development of standard V classes, a further 1,064[1] classes would have been needed by January 1967 if all the children in standard V in 1964 were to progress to standard VIII; such a development could, if the supply of teachers would allow, add £0.6 million to the gross (all sources) annual expenditure on primary education before any other developments could be considered. Worse still, it would do so while making no significant contribution to the urgent high-level manpower needs of the economy. At first the attempt was made to accommodate most of these developments within the plan, but they had to be given the lowest priority as soon as cuts became unavoidable. However it was found possible to avoid the creation in the long run of another selection barrier in the system (after standard VI) by the introduction of the 'seven-year primary course', to which reference has already been made. The decision to advance the implementation of this reform from the early nineteen seventies to 1965-67 did however throw a heavy onus on the plans to develop 'primary schools of quality'. The importance attached to these plans can be illustrated from many speeches of the Minister of Education[2] and also in the Ministry of Education's final submission to the Directorate of Development Planning in the preparation of the second volume of the development plan where it is stated: 'The planned increase in the number of pupils passing through secondary schools will contribute most to an increase in shared national wealth if the rise in these numbers is accompanied by a rise in the number of less well qualified people associated with them in effective participation in the cash economy. The mechanical "rote" learning which has been all too common in many primary schools until now must be replaced by a more modern approach, preparing pupils who will be ready to apply their understanding gained at school to the variety of novel situations they will meet as they participate in the country's development.'[1]

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[1] Eighty for standard VI, 417 for standard VII and 567 for standard VIII.

[2] For example, Budget Speech of the Minister of Education, June 1964: 'These (primary school) inspectors are indeed in the forefront of the struggle to improve the quality of primary education upon which the success of the programme for secondary school expansion depends.'

## Primary education

The stress which was being laid on improving the quality of primary education could not, however, exclude the need for some quantitative expansion. The enrolment of 140,000 pupils in standard I in 1964 corresponds to about 55 per cent of an annual age cohort.[2,3] Even the stipulation that this proportion should not be allowed to fall meant that about 3,000 new places in nearly seventy new classes would have to be found each year.[4] Similarly some further expansion of standard V provision would be necessary if only for reasons of equity, because some local authorities had not been able to make the expansion during the period 1961-64 when encouraged to do so by the government. Although it was financial limitations which had led the government to reduce its projected assistance to local authorities, the fact that the resulting modifications to the subvention system[5] have left the initiative for proposals with the local authorities, while giving them a strong financial incentive to conform to national priorities in respect of improving the quality of education, may well ultimately seem to be the strongest feature of the plan for primary schools; this is because it provides a system under which the national priorities can be interpreted in different ways in the light of the widely differing needs of different local authorities.

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1. Development Plan of the Ministry of Education, paragraph I.5, Dar es Salaam, Ministry of Education. (Mimeographed.)
2. Interpolation of age structure data collected at the 1957 census and the assumption that each cohort is 2 per cent larger than its predecessor results in an estimate of between 260,000 and 280,000 children aged 8 in 1964; actual ages of entry to school vary, however, between 6 and 9 years or more.
3. The percentage in individual districts is much more difficult to estimate with reliability. While it approaches 100 per cent in most towns, it may well be below 20 per cent in a few districts and enrolments of between 30 per cent and 45 per cent of each age group are characteristic of a large number of districts.
4. The average size of standard I classes throughout the country in 1964 was 43.3 compared with a permissible maximum of 45; there was no significant prospect of improving enrolments without increasing the number of classes because the relatively few schools with less than forty-four or forty-five pupils in standard I were nearly all to be found in the more remote areas where difficulty of access to school or lack of parental interest could be seen to be the underlying reasons for low enrolments.
5. *Tanganyika Five-Year Plan* ..., op. cit. Vol. II, pp. 113-115.

## Secondary education

The figures in Table 5 make it clear that the greatest achievement of the period 1961-64, when viewed in the light of the country's most pressing needs, had been the increase in secondary school enrolments to the extent that the form 4 enrolment figure of about 1,600 in 1961 could be expected to be almost trebled in four years (i.e., if form 4 enrolments in 1965 equalled form 1 enrolments in 1962). Thus, by the beginning of the 1964-69 planning period, it became possible to make plans which depended for their success on the availability of much larger numbers of secondary school leavers. In the field of education itself it was at last possible to plan the training of enough grade A teachers to meet the most pressing needs of the upper and extended primary schools, and also to look forward to the day when all students entering teachers' colleges could come from secondary schools—a major step forward in the struggle for primary schools of quality. It was also possible at last to plan post-secondary courses at the technical college without fear that the plans would be made irrelevant for lack of students. Other bodies looking for students for vocational training could also be confident for the first time that an adequate number of students would be forthcoming. The number of additional secondary school places needed to meet the anticipated manpower requirements was not in fact large; an increase of the annual entry to form 1 of about 350 pupils each year appeared to be sufficient,[1] and provision was made accordingly in the plan. The provision for increased enrolments in forms 5 and 6 was also based on the manpower projections, together with assumptions about the number who would qualify to enter university; in this latter respect particular attention was given to ensuring that the supply of pupils qualifying in science subjects would be increased. However, provision to meet purely quantitative needs could hardly be regarded as adequate; as the proportion of each age group admitted to secondary school rose,[2] so it was becoming increasingly important to provide courses which, while of a standard equal to their predecessors, would be more suitable as 'terminal' courses for pupils who would go straight into employment on leaving school. Most of the secondary schools in Tanzania in 1964 were organized as two-stream (eight classes) schools for 280 boarders with twelve or thirteen staff members, a staffing strength which hardly exceeds the minimum necessary for effective teaching of a purely 'academic' school certificate course even when the situation is not complicated by the frequent intervention of staff changes; consequently it was necessary to concentrate as much as possible of the expansion of the secondary school system as a whole into the extension of existing schools, which would thus become better prepared to teach a more diversified curriculum.

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[1] Although reservations have already been expressed over this figure in Chapter 4.

[2] This is, of course, a strictly comparative term. Even the projected figure of 7,070 entrants to form 1 in 1969 is equivalent to only about 3 per cent of an age group.

## Higher education

In the case of higher education, detailed planning is formally the concern of the university itself.[1] However, there is in the normal course of events a continuous series of relatively informal consultations between the university authorities and the government concerning the manpower development programme. Such discussions are of particular importance in relating the work of the university in the professional preparation of doctors, teachers, lawyers, engineers, agriculturalists and others for national needs. In contrast to this approach the planning of the financial limits within which the university would be expected to operate has to be included within the scope of the over-all education plan and is formally the direct concern of the government. In this instance 'target' methods of costing[2] are peculiarly appropriate. They were therefore applied to the enrolments required for manpower purposes and adopted.

## The training of teachers

The plan for the training of teachers, which is discussed more fully in the next chapter, is in some respects the part of the plan which represents the sharpest break with the past. The only direction in which quantitative progress had been possible (but not particularly desirable) on any scale during the period 1961-64 was in the training of grade C teachers, because there were not enough candidates for post-secondary teacher training;[3] there was however some expansion of grade C (post-primary) training during the period 1961-64, without which there would have been a corresponding increase in the over-all shortage of teachers in the period 1964-67; but, as the next chapter will show, there was already in 1964 a considerable surplus of grade C teachers in the schools who were employed in place of grade B or grade A teachers in standards VI to VIII. Some progress had been made in increasing the proportion of new trainees who had been to secondary schools from 17 per cent to 25 per cent in 1964, but this had been barely sufficient to maintain the proportion of grade A and grade B teachers in the schools in a period when wastage, largely due to new employment opportunities in the public service, was a particularly severe problem among the more highly qualified teachers.[4] It was against this background that the proposal was adopted to discontinue post-primary (grade C) teacher training in the near future and to substitute post-secondary (grade A) training, now that the supply of candidates from the secondary schools could be expected to come into balance with requirements, thus making plans for an intake of 1,500 students into training in 1969 compared with 289 in 1964 into practical propositions.

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[1] The Ministers of Education of Tanzania, Kenya and Uganda are, of course, represented.

[2] See page 122.

[3] In 1964, 320 places were provided for grade A courses but it was only possible to fill 289 of these places.

[4] In 1962, 1,530 out of 10,273 teachers in primary schools were grade A or grade B. Two years later, the corresponding figures were 1,774 (estimate) out of 12,044, i.e., still about 15 per cent of the total. Over the same two-year period the proportion of primary school children enrolled in standards V to VII rose from 15 per cent to over 20 per cent of total primary school enrolments.

The planned changing pattern of enrolments at the principal stages of the education system is shown in Table 6. Contents of the table are taken from the official plan document.

It will be immediately noticed that there are no 'target' enrolment figures for primary education in 1969. This is because the targets for all the other parts of the education system are directly related to the calculations of government expenditure involved,[1] while the progress which local authorities will be able to make is explicitly related to their own capacity to pay a part of the cost. At the time of writing it seems likely that there will be about 160,000 pupils in standard I and between 55,000 and 60,000 in standard VII in 1969. The number enrolled in standard V is more difficult to predict, since it could be greatly affected by the

TABLE 6. Targets for the development of education, 1964-69

| | 1964[1] | 1969 | Percentage increase |
|---|---|---|---|
| Tanganyikan students entering the University of East Africa | 175 | 528[2] | 202 |
| Pupils entering form 5 of secondary schools (higher school certificate course) | 680 | 1 280 | 88 |
| Pupils entering form 1 of secondary schools (school certificate course) | 5 250 | 7 070[3] | 35 |
| Students entering craft courses (Moshi Technical School and grant-aided establishments) | 188 | 350 | 86 |
| Students entering teacher-training courses, grade A | 320 | 1 500 | 369 |
| Students entering teacher-training courses, grade C | 920[4] | — | — |
| Pupils completing standard VIII (later standard VII) | 18 500[5] | — | — |
| Pupils entering standard V | 44 000[5] | — | — |
| Pupils entering standard I | 142 000[5] | — | — |

SOURCE *Tanganyika Five-Year Plan*..., op. cit., Vol. I, p. 67

NOTES

1. Provisional figures used for planning purposes, which were later superseded by figures in Table 5, are included in this column
2. A lower figure of 450 will apply if it does not prove possible to accommodate the additional students at the reduced cost (mentioned in Five-Year Plan, Chapter 4, paragraph 8)
3. Assuming adequate external aid will be forthcoming
4. To be discontinued
5. The increase in these figures will be determined largely by the capacity of local education authorities to bear their share of the recurrent cost of primary education

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[1] In note 3 to Table 6, the reservation about enrolments in form 1 of secondary schools is similarly due to the assumption of non-government contributions to the required revenue.

authorities' view of their financial capacities when current developments have been carried right through to standard VII; it is not, however, likely to be less than 60,000, an increase which would be achieved only partly by providing new classes, as increasing pressure for places will probably bring about a substantial increase in the average size of classes from the 1964 figure of 39.1 pupils per class towards the maximum permitted figure of 45. The discussion of the process of decision in Chapter 5 has shown the importance of recognizing the quantitative relationship between educational programmes and their revenue implications. It is therefore no accident that the table of targets in the published plan (Table 6) is immediately followed by the definitive estimates of the costs involved (Tables 7 and 8).

TABLE 7. Functional analysis of over-all financial provisions—capital expenditure

| Sector of education | Gross | Net cost to government |
|---|---|---|
| | (£ thousand) | |
| *Higher*<br>To finance the expansion of the University of East Africa so that all students expected to qualify for entry may do so. Also to provide a small amount of capital for the development of extramural studies | 4 902 | 4 902 |
| *Secondary*<br>(i) To open twelve streams at form 1 in 1965, six streams in 1966, and ten streams at form 1 each year thereafter; (ii) To open three new streams at form 5 in 1965, one new stream in 1966 and again in 1967, and five new streams in 1968 and again in 1969 | 3 251 | 2 651[1] |
| *Technical*<br>Extensions and improvements at Moshi Technical School; extensions to Dar es Salaam Technical College to accommodate the increased input to technician-level courses which will be required in the next planning period | 1 500 | 1 500 |
| *Primary*<br>To assist local education authorities in converting their primary school systems to the seven-year course and to provide for controlled expansion of the lower primary schools. To improve the class-room and staff quarters at schools, particularly those in poorer districts, where it is essential that grade A teachers should be employed | 5 000 | 2 697[2] |
| *Teacher training*<br>To convert the existing system of training colleges into a streamlined system of ten colleges, having an annual intake of 1,500 students for grade A courses | 2 000 | 2 000 |
| *Other* | 250 | 250 |
| Total | 16 903 | 14 000 |

SOURCE *Tanganyika Five-Year Plan . . .*, op. cit., Vol. I, p. 67

NOTES

1. These schools are already planned at no capital cost to the government
2. Local education authorities are expected to provide £2,303,000 (in cash and self-help) towards this programme

TABLE 8. Functional analysis of over-all financial provisions—recurrent expenditure

| | £ thousand | | £ thousand |
|---|---|---|---|
| (a) *Annual expenditure* | | (b) *Expenditure on each sector* | |
| 1964/65 | 5 933 | Higher | 4 417 |
| 1965/66 | 6 524 | Secondary | 10 002 |
| 1966/67 | 7 049 | Technical | 1 800 |
| 1967/68 | 7 642 | Primary | 13 103 |
| 1968/69 | 8 358 | Teacher training | 3 234 |
| | | Other[1] | 2 950 |
| Total | 35 506 | Total | 35 506 |

NOTE
[1] Including administration

SOURCE
*Tanganyika Five-Year Plan*..., op. cit., Vol. I, p. 68

# 7 Teacher requirements and supply

The successful implementation of any plan for developing the supply of teachers requires planning and forethought which goes well beyond relatively simple statistics and assumptions. Fortunately, the statistics required are generally not so complex as those which are desirable when preparing forecasts of expenditure. However, in a situation of manpower shortage, salaries and prospects for professional promotion are vitally important features; they are therefore discussed in the concluding paragraphs of this chapter.

## Statistics and assumptions underlying the plan for the training of teachers

Statistical descriptions, or tenable assumptions, have to be made in respect of the following factors: (a) the number of teachers serving at the beginning of the plan period, classified according to their qualifications, which must be presumed to be directly related to the tasks of which they are capable (see Table 9); (b) the proportion of all serving teachers who should be professionally trained for their task; (c) the availability of candidates for training as teachers at various educational levels; (d) the rate of withdrawal of teachers from service in the various categories.

### *The number of serving teachers*

In 1964, full-time teachers were recorded as serving in public schools in Tanganyika, as follows: 12,044 in primary schools, 919 in secondary schools, 152 in technical schools, including the Dar es Salaam Technical College, and 203 in teachers' colleges, which totals 13,318.[1]

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[1] Source: Ministry of Education.

TABLE 9. Training and duties of teachers

| *Qualification* | *Method of entry* | *Usual teaching duties* |
|---|---|---|
| Grade C | Eight years' primary education plus two years' training | Usually teach standards I to VI |
| Grade B | Now produced only by upgrading of grade C teachers, but formerly mainly by two years' training of students with eight years' primary and two years' secondary education | Usually teach standards VI to VIII |
| Grade A | Eight years' primary plus four years' secondary education followed by two years' training | Usually teach standards VI to VIII; also forms 1 and 2 in secondary schools and forms 3 and 4 Kiswahili |
| Education officer | Formerly a promotion post only, except where some overseas degrees or other qualifications are held which are not recognized as equivalent to UEA graduates. New two-year course for direct entry began in 1965 | Usually teach in secondary schools, forms 1 to 4 |
| Graduate | By taking a degree recognized as equivalent to those of the University of East Africa. Professional training as a teacher is also nearly always required | Secondary schools forms 1 to 6 |

This total teaching force of 13,318, though almost adequate numerically to maintain the pupil-teacher ratios prescribed for classes at the various levels of education, was defective in two respects—in the proportion of Tanzanian citizens holding teaching posts in the higher levels and in the proportion of suitably qualified staff members holding posts in primary schools. The teacher-supply policy of the Tanzanian Government was designed to remedy these deficiencies in the shortest possible time. The teacher-supply position in primary education in 1964 is set out in the last line of Table 10 where it is contrasted with the number of teachers of various grades required for full staffing of urban and rural primary schools. The criterion used to assess full staffing is the establishment of teachers which would be approved by the government for each class. This requirement is related in turn to the training received by the teachers in the various grades and therefore to their assumed capacity to teach the syllabus in the various primary school standards.

### TEACHERS IN PRIMARY SCHOOLS

The most important requirements which relate the teachers' qualifications to the standard of class they are expected to teach are those concerned with the language of instruction. Under the pre-independence education system, African primary education was provided in the medium of Kiswahili with a transition to English as the medium being optional in standard VI and compulsory in standard VII. In this way pupils who went on to secondary school after standard VIII would have at least two years' experience in the English medium, used in secondary schools, before entry. In the various non-African (principally Indian) education systems, children either went through the whole primary course with English as a medium (and in any case studied English as a subject throughout, while African children

TABLE 10. Primary school teachers (1964) in rural and urban areas classified according to qualification

| School category | School standard | Number of classes | Teachers required | | | |
|---|---|---|---|---|---|---|
| | | | A | B | C | Total |
| *Urban schools* | | | | | | |
| (a) Half-day attendance[1] | I | 174 | | | 190 | |
| | II | 174 | | | | |
| | III | 17 | | | | |
| | IV | 14 | | | | |
| (b) Full-day attendance[2] | III | 156 | | | 156 | |
| | IV | 161 | | | 161 | |
| | V | 150 | | | 150 | |
| | VI | 134 | | 134 | | |
| | VII | 119 | 119 | | 104 | |
| | VIII | 89 | 89 | | | |
| Total teachers required | | | 208 | 134 | 761 | 1 103 |
| Actual teachers in post[3] | | | 305 | 270 | 591 | 1 166 |
| *Rural schools* | | | | | | |
| (a) Half-day attendance[1] | I | 3 057 | | | 4 440 | |
| | II | 3 008 | | | | |
| | III | 1 443 | | | | |
| | IV | 1 371 | | | | |
| (b) Full-day attendance[2] | III | 1 491 | | | 1 491 | |
| | IV | 1 633 | | | 1 633 | |
| | V | 1 062 | | | 1 062 | |
| | VI | 981 | | 981 | | |
| | VII | 916 | 916 | | | |
| | VIII | 509 | 509 | | 713 | |
| Total teachers required | | | 1 425 | 981 | 9 339 | 11 745 |
| Actual teachers in post[3] | | | 390 | 1 109[4] | 9 379 | 10 878 |

SOURCE Ministry of Education

NOTES

1. Half-day attendance requirement for full staffing of all schools, standards I to IV, is half C
2. Full-day attendance requirement for full staffing of all schools: standards III, IV and V, is one C; standard VI, one B: standards VII and VIII, one A plus half C
3. The returns of the number of serving teachers include the category 'Other recognized qualifications'. It is estimated that in rural areas one-third of these teachers are equivalent to grade A and the remainder to grade C, in urban areas the proportion is estimated at one to one
4. About 300 of these grade B teachers were promoted from grade C in recognition of meritorious service. Since they were not given any specific preparation for teaching standards VII and VIII before promotion, they have not been counted in the discussion as teachers qualified to work in the English medium. They may in fact be teaching any standard from standard I right up to standard VIII

did not begin to study English before standard III), or, alternatively, they began the course in their own vernacular, e.g., Gujerati, and transferred to English fairly early in the course—usually by standard V; Kiswahili was not used as a medium of instruction, nor was it a compulsory subject in the curriculum, in these schools.

With the change-over to an integrated system of education, in accordance with the Education Ordinance of 1961, it was decided that syllabuses should be recognized in only two media of instruction, Kiswahili and English; it was further decided that in any school, whichever the medium selected, the other language should be taught as a subject; also there should be a common syllabus for the last two years (standards VII and VIII) of the primary school course.

The shortage of teachers in rural primary schools, which are virtually all Kiswahili-medium schools, was concentrated almost entirely among teachers qualified to use English as the medium of instruction. Of a potential requirement of 2,406 of these teachers, the estimated number serving in rural primary schools was approximately 1,200 (390 grade A, most of whom qualified for teaching by completion of a two-year course of training for which the entry requirement was school certificate, and 810 grade B teachers who had entered teacher training after successfully completing only a part of the secondary school course). These 1,200 teachers are, however, distinguished from the majority of English-medium teachers in urban primary schools in that their own first language is, characteristically, Kiswahili rather than English.[1] In the urban primary schools, a large proportion of which are former Indian schools, it would appear at first sight from Table 10 that 342 English-medium teachers are required and that there are actually 575 such teachers in service. The balance of 233 teachers, nearly all of them of Indian extraction, is not, however, simply transferable to rural primary schools. Not only is it rather unlikely that they would settle in rural areas or make satisfactory teachers of children from a different linguistic background; they are needed to teach in the urban primary schools where English is the medium in the lower standards. Thus the position in the urban schools is that there is a severe shortage of teachers who are competent to teach Kiswahili to pupils whose mother tongue is not an African language;[2] this shortage is proving in practice to be a major obstacle in the implementation of the proposal to construct a truly common syllabus for all pupils in the last two years of the primary school course.

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1. The term 'Kiswahili rather than English' is used, as the mother tongue of an unknown number of these teachers is not Kiswahili but a local African vernacular, such as Kihaya or Kichagga. The point is that these teachers are better qualified to teach, in English, children who have reached standards VII and VIII through Kiswahili-medium classes in the lower standards; a teacher who does not habitually use Kiswahili as his *lingua franca* is considered to be at a disadvantage in these circumstances.
2. While many teachers, including all African teachers, speak Kiswahili fluently, few of them have been trained as teachers of the language. The standard of teaching of Kiswahili to children who speak the language can probably be greatly improved through the training of teachers. The skills of teaching Kiswahili as a second language are only now becoming a focus of interest.

Temporary arrangements have been made to ease the actual numerical shortage of teachers in rural primary schools (estimated at 867 from Table 10); of the 713 posts established for a 'third' teacher in standards VII and VIII about 450 are not filled, thus freeing an equivalent number of grade C teachers; about 120 United States Peace Corps teachers entered service (as English-medium teachers) just after the return was completed and the remainder of the deficit has been met largely by permitting half-day attendance in the lower standards for more classes than the official 'establishment' figures would indicate. As a consequence there is now relatively little English-medium teaching in standard VI and, in some cases, there are classes in standards VII and VIII which have to be conducted largely in Kiswahili by teachers who are not familiar with the subject-matter taught in standards VII and VIII (and which are, therefore, all too frequently mere revision of work done in the lower standards) because of the shortage of suitably qualified teachers.

As a consequence of these contrasting situations found in rural and urban primary schools, two of the principal objectives of the national teacher-training programme can be identified: (a) to expand rapidly the provision of training facilities for teachers capable of using English as a medium; and (b) to make suitable provision for the training of teachers to teach Kiswahili as a subject both to those who use the language as an everyday means of communication and to those to whom it is, at best, a second language.

## TEACHERS IN SECONDARY SCHOOLS

In secondary education the teacher-supply position is quite different from that found in primary education. The 'establishment formula' allows for the provision of one and a half teachers per class, this figure to include leave reliefs, and suggests, further, that of each four teachers employed against the establishment for school certificate classes (forms 1 to 4, formerly known as standard IX and XII) two shall be graduates, one other shall be of education officer rank but not usually a graduate and one shall be a grade A teacher. All teachers employed against the establishment for higher school certificate classes (university entry—forms 5 and 6) should be graduates. In addition to these establishment allowances, each school where girls are in attendance may have one additional teacher on the staff to teach domestic science. For 1964, the establishment formula gives a total requirement of 929 teachers—497 graduates, 203 other education officers, 203 grade A teachers and twenty-six others with qualifications to teach domestic science.

The staffing strength in the schools as of June 1964 is set out in Table 11.

As in the case of the primary schools, there is a small over-all shortage of staff, but this becomes larger when allowance is made for the sixty-one laboratory assistants, who are not teachers, and the thirty-two 'other teachers', most of whom

TABLE 11. Teachers in secondary schools, 1964

| Teachers | Tanzanian citizens | Others | Total |
|---|---|---|---|
| Holders of degrees,[1] with a professional teaching qualification | 13[2] | 323 | 336 |
| Holders of university degrees | | | |
| (a) with a professional qualification | 10 | 109 | 119 |
| (b) without a professional qualification | 10 | 120 | 130 |
| Holders of diplomas[3] | 39 | 42 | 81 |
| Grade A teachers (or equivalent) | 108 | 9 | 117 |
| Teachers of domestic science or handicrafts, not otherwise classified | 14 | — | 14 |
| Other teachers | 32 | 29 | 61 |
| Laboratory assistants | 61 | — | 61 |
| Total | 287 | 632 | 919 |

NOTES
1. Recognized as equivalent to those of the University of East Africa
2. Of these thirteen teachers, three did not hold professional teaching qualifications
3. Equivalent to those formerly awarded by Makerere College

SOURCE
Ministry of Education

(if they were citizens) were pupils who had completed the higher school certificate course at the end of 1963 and were waiting to enter the university in July 1964 or (if they were not citizens) were auxiliaries provided under such schemes as voluntary service overseas; such teachers, although they gave valuable assistance in teaching, were not counted against the establishments of the schools in which they were serving or approved for purposes of grant-in-aid unless they were graduates. The effective supply of teachers was, therefore, approximately 800 to fill 929 posts; in other words, one post in six is vacant. If the incidence of overseas leave were evenly spread over the year this situation would not become too serious, since absence from duty of one in seven of overseas teachers is allowed for in setting the establishment formula. However, the return from which the figures which have been discussed are taken was made in May-June 1964, before the period (July-October) in which the incidence of leave is usually heaviest. There must, therefore, have been considerable difficulty in the schools during the latter part of 1964, especially after the opening of the university year in July.

It is, however, not the numerical shortage of staff which is most serious in secondary education, nor, as in primary education do the formal qualifications of the teachers actually in service fall far short of 'establishment' requirements.[1] The serious shortages were of graduate Tanzanians in particular and, more generally, of experienced teachers having high academic qualifications who are likely to remain in Tanzania long enough to give continuity until an adequate supply of

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[1] This is, of course, a matter of opinion turning largely upon the value placed upon graduates whose degrees are not recognized as equivalent to those of the University of East Africa.

Tanzanian graduates is forthcoming. There were less than 200 Tanzanian teachers in secondary schools[1] and over half of these were grade A teachers. Of the 323 qualified graduates, 145 were serving two-year contracts under the Teachers for East Africa scheme and several others were recent recruits. Consequently teacher-supply policy in secondary education is concentrated on the following objectives: (a) the training of a large number of Tanzanian graduates as teachers; (b) the encouragement, especially during the interim period before the results of the university-expansion policy bear fruit, of the recruitment of expatriates who are willing to serve for more than one two-year tour and of the recruitment for direct entry to senior posts of experienced teachers from overseas.

One further difficulty which awaits solution is that of the provision of teachers having not only the right qualifications but also the right teaching subjects. The constraint in this case is largely one of the supply of suitable candidates for training as teachers of science subjects and of languages.

## TEACHERS IN TECHNICAL EDUCATION

The technical education sector is small in comparison with secondary education, the total number of staff employed being 152. As in the case of secondary education, however, the teacher-supply position (Table 12) reflects the virtual absence of Tanzanian citizens from the senior posts for which high qualifications are required.

The high proportion of teachers holding relatively low qualifications as assistant technical instructors or junior assistant technical instructors[2] is not in itself

TABLE 12. Teachers in technical education, 1964

| Teachers | Tanzanian citizens | Others | Total |
|---|---|---|---|
| Education officers (i.e., graduate equivalents) | 4 | 75[1] | 79 |
| Grade A teachers | 6 | — | 6 |
| Technical assistants | 20 | — | 20 |
| Junior technical assistants | 47 | — | 47 |
| Total | 77 | 75 | 152 |

NOTE
1. This total includes twenty teachers provided through external aid channels at no cost to the Tanzanian Government. The remaining fifty-five are charged against the ordinary government establishment

SOURCE
Ministry of Education

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1. From Table 11, i.e., 287 less sixty-one laboratory assistants and thirty-two 'other teachers'; it is also likely that considerably more than twenty of the 'holders of other degrees' are in fact Tanzanian citizens; however, of 229 others in this category a substantial proportion are teachers in the former Indian secondary schools who will have already become Tanzanian citizens, although they are not shown as such in Table 11.
2. Regarded as broadly equivalent for salary purposes to grade B and grade C teachers respectively.

serious, since it reflects the amount of individual attention which must be given in the practical work associated with craft training. As in the case of secondary education the most serious deficiency is in the number of highly qualified Tanzanian citizens—a deficiency which is seen to be even more serious when the current trend away from craft training as an educational responsibility towards an emphasis on technical education is taken into account. A shortage of indigenous teachers suitable for work in technical education cannot, however, be remedied easily within the country in its pre-industrial phase, partly because there have been very few opportunities for Tanzanian citizens to gain the necessary industrial experience and partly because the supply of suitable candidates is itself very restricted, a problem which is discussed later.

## STAFF IN TEACHERS' COLLEGES

The pattern of staffing in teachers' colleges (Table 13) is also very similar to that in secondary education. In this case, too, the shortage is one of highly qualified and experienced Tanzanian citizens. The predominance of Tanzanian teachers with qualifications little higher than those of their students is recognized as a weakness which must be cured.

It is, however, also recognized that the art of training Tanzanian teachers must be nurtured largely in Tanzania itself. One of the reasons for the establishment of the Institute of Education, bringing together the University College (through its department of education) and the teachers' colleges, is to provide a mechanism through which successful and experienced teachers can develop their interest in the training of teachers. It is perhaps true, nevertheless, that the dependence upon skilled expatriate tutors will last longer in teacher training than in other sectors. Avenues of promotion for primary school teachers are not broad within the teaching

TABLE 13. Staffing in teachers' colleges, 1964

| | Tanzanian citizens | Others | Total |
|---|---|---|---|
| Trained graduates | 6 | 42 | 48 |
| Other graduates | 2 | 54 | 56 |
| Makerere diploma and equivalent | 19 | — | 19 |
| Grade A | 22 | 9 | 31 |
| Grade B | 31 | — | 31 |
| Grade C | 15 | — | 15 |
| Other | 3 | — | 3 |
| Total | 98 | 105 | 203 |

SOURCE Ministry of Education

profession and it is by careful conservation of the opportunities arising in teacher training that the best hope of retaining the best teachers (who might otherwise seek promotion outside teaching) within the education system lies. This is especially true now that most of the administrative and inspectorial positions have been filled by teachers with as much as twenty years of their careers still ahead of them.

## *The professional training of teachers*

The assumption made by the Tanzanian Government in formulating its policy with respect to the professional training of teachers is simple enough to state. Since a far larger part of the money spent on placing a teacher in front of a class is spent on the teachers' salary once he is working than on his initial training, and since it is believed that the trained teacher gives significantly better value for money, regulations have been made to the effect that grant-in-aid shall be payable only for teachers whose professional qualifications are recognized by the ministry.[1] It follows that the number of teachers to be trained should be made equal to the total number of vacancies expected to arise in the schools, either by the withdrawal or transfer of serving teachers or by the expansion of the system of publicly financed schools.

## *The availability of candidates for training as teachers*

The assumption that all teachers shall be professionally trained is, of course, tenable only if there is an adequate supply of students for training or an extra-territorial supply of trained teachers. Experience of the job-allocation procedures for secondary school leavers (form 4 level) in 1962 and 1963, combined with the rapid secondary school expansion in the period 1960-64,[2] indicated at the time when the five-year plan, 1964-69, was being prepared that there was likely to be a supply of these secondary school leavers for teacher training which would be adequate or nearly adequate to fill all the vacancies in primary schools for which public finance could be foreseen, provided that the rate of withdrawal and retirement from teaching remained at about the same level as in 1961-64. This encouraging conclusion had been quite beyond the bounds of possibility three years earlier when the previous plan was in preparation.

In 1964, the situation regarding the training of secondary school teachers was not dissimilar from that regarding post-secondary trainees for primary education three years before. While it was becoming possible to plan on the assumption that a significant proportion of university graduates would become teachers during the forthcoming plan period, it was not possible to predict a supply of trainees which would be adequate to meet the full requirements of the secondary schools, in which requirements for graduates were planned to increase by about sixty each year in addition to the large number of recruits needed to replace departing expatriates. A small number of grade A teachers are appointed each year to secondary school posts in accordance with the establishment formula and there is also a new course for form 6 leavers who have not succeeded in gaining university places. This latter course, leading to qualification as education officer, grade III, is facing difficulties over the supply of suitable students, especially for science, because the competition for the limited number of these form 6 leavers is particularly intense. The solution of the difficulty over science students is, however, already in sight; enrolments in post-school certificate science courses have risen and will continue to rise so that they form four-sevenths of all enrolments at this level. Even if there is no improvement shown in the current somewhat pessimistic estimate of the number of these science pupils who will qualify to enter the university, the continuation of the present allocation of 30 per cent of science bursaries to intending teachers should bring about a balance between demand and local supply in the middle of the 1970s.

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[1] Most of the graduates listed in Tables 11, 12 and 13 as having no professional training were either already in service when the regulation was brought into force or they are teachers who, while holding no formal qualifications, have gained valuable teaching experience before coming to Tanzania.

[2] The number of candidates for school certificate were 1,359 in 1960; 1,603 in 1961; 1,947 in 1962; 2,839 in 1963; and 3,630 in 1964.

The greater difficulty may be found in recruiting suitable teachers of language (and literature). The number of African pupils who study these subjects in preparation for university entry is almost negligible and the number who opt for teaching is even smaller. In this instance it is clear that action must be taken in the secondary schools to ensure that the subject balance of the arts intake to university education courses is not seriously overweighted with students of history, geography and economics. It is, to say the least, doubtful whether a conventional 'literature' course would or should be acceptable. The answer may lie in the formation of a course of study covering the three languages of most immediate interest in use in Tanzania, i.e., Swahili, English and French.

The supply of candidates for professional preparation for work in technical education and in teachers' colleges does not come directly from the ranks of school pupils. Consequently, quantitative estimates of the size of these sources of supply are meaningless. In technical education current efforts are concentrated on the selection of those who, having enjoyed only restricted educational opportunities in the past, have shown in their work in technical education that they could profit from further training overseas in an industrial setting which Tanzania is not yet able to provide. Since the number of such potential trainees is strictly limited by the small size of the technical education undertaking today, efforts are already being made to attract people with industrial experience into teaching; but, so far, no suitable candidates with significant experience have come forward. However, this, too, is a limited field for recruitment until larger numbers of Tanzanian citizens reach the technician level in industry. Only when the recent expansion of intakes to post-secondary technical education[1] results in a larger number of technicians, some of whom are attracted to teaching, can the current dependence upon expatriate teachers in technical education be greatly modified.

The supply of suitable teachers for work in the training of teachers is critical to the success of any teacher-supply programme. It is apparent that efforts to recruit enough teacher trainers for immediate needs from the ranks of serving Tanzanian teachers would not only block the promotion prospects for future successful primary school teachers but would also seriously threaten standards in the schools—the latter both because a fair proportion of appointments would be bound to be unsatisfactory,[2] with effect on the standards achieved in the teachers' colleges, and because the schools can ill afford to part with their more gifted teachers. This situation seems to be well understood by the countries and agencies most deeply involved in supplying teachers to Tanzania. Since the plan, as adopted for 1964-69, requires that between 250 and 300 education officers shall be serving in teachers' colleges by 1970 (a total to be compared with one of just over 100 in 1964), it is already clear that in this sector of education the already high degree of dependence upon expatriates will not only last longer than in other sectors, but will also become greatly intensified before large-scale localization of the staff by teachers of proved value in the schools becomes professionally feasible.

## *The rate of withdrawal of teachers from service*

During the recent period of rapid expansion of the education system, accompanied by rapid expansion in many other fields, it has been peculiarly difficult to estimate the rate of withdrawal from the teaching profession. In the case of primary education, the number of serving grade C teachers has been growing at the rate of about 500 per annum and that of grade B teachers by 200 while the number of grade A teachers has not greatly changed. This net annual increase of 700 teachers is only about 100 less than the net annual output of the teachers' colleges in recent years. Such a low net rate of withdrawal of teachers from service has undoubtedly been achieved partly because rapid expansion was made during the three-year plan period both in areas which have been the traditional suppliers of teachers to the whole country and in the towns. In both these cases there seems to have been a reserve of unemployed teachers, particularly women, who could return to work only if a school was opened near their homes, or those of their husbands. The net withdrawal rate, once this reserve is taken up, seems more likely to be something over 300 per annum.

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[1] Nil in 1961; 12 in 1962; 53 in 1963; 106 in 1964; 190 in 1965.

[2] In this connexion it must be remembered that with the coming of independence a large number of the most gifted teachers have been promoted to administrative posts (not only in education) and others have been transferred to other activities, such as politics and commerce.

In secondary education, where expatriates on two-year contracts form such a large proportion of the total number of graduates, the rate at which graduate teachers have to be replaced (or persuaded to accept a second contract) is expected to rise to 180 per annum. In technical education the withdrawal rate will be determined largely by decisions still to be reached about the curricula of the former trade schools. In teacher training too the rate is more likely to be determined by the progress of reorganization than by any other factor. (The proposed reorganization is discussed below.)

## The outline plan for the training of teachers

### *Primary school teachers*

Against the background discussed above, it was possible to make proposals as to the type and emphasis of teacher-training to be undertaken, while leaving the precise size of the undertaking to be a matter for later determination in the light of financial limitations.

The first basic statistical fact to be taken into account is wastage; in this instance a rough estimate of the current extent of wastage (net) can be made by comparing the annual rate of growth of each category of the teaching force with the annual output of the teachers' colleges. In the case of grade C teachers, the cadre was growing at a rate of about 500 annually between 1962 and 1964 when the output of the colleges was between 700 and 750 each year, indicating a net annual wastage of 200 to 250. While this figure was fairly easy to establish, projection into the future was a more intractable problem; it was clear that wastage would increase as the number of long-service teachers and of women teachers increased, but there was not a firm foundation for any estimate of the rate of increase, which was in practice assumed to be twenty per year. At this stage it must, however, be emphasized that the difficulty over wastage statistics is not so serious in a country where over two-thirds of the requirement for new teachers is derived from the opening of new schools and only one-third to meet wastage requirement, as it is in economically more advanced countries where the proportion of each year's output of teachers which is needed simply to maintain the staffing strength in existing schools can rise to well over half of the total.

The second basic fact to be taken into account was the shortage of grade A teachers and the third was the likelihood that candidates for entry to grade A courses could at last be expected to be available. So in primary education the decision was taken that the training of grade C teachers—of whom there was already a surplus within the teaching force—should be stopped as soon as possible and that the existing small colleges should be replaced by a smaller number of colleges, each to have at least 240 students,[1] in which secondary school leavers would be trained to become grade A teachers.[2] In this way the disturbing shortage of teachers qualified to teach in the upper primary standards could be eliminated and this step could then be followed by a programme of curricular improvement in the lower standards which would depend for its success on the introduction of the more highly educated grade A teachers. The standard of education of the teachers themselves would be further improved by the consolidation of teacher training into larger colleges, each able, by virtue of a minimum establishment of about twenty staff members, to provide a full and varied academic and professional curriculum which is beyond the reach of colleges today where they may have as few as six or seven staff members.

The actual number to be trained was more difficult to determine than the type of course which should be given in view of the financial uncertainty associated with the rate of expansion of primary schools. Over the five-year period there was a clear need for about 1,500 to bring in the 'seven-year course' and an undetermined number for expansion of the system. One way in which this last number can be estimated is by reference to the addition which can be made to subvention to local authorities on account of approved expansion. These additions were expected to average about £100 per class[3] and provision was made in the plan for subvention additions totalling £230,000,[4] equivalent to about 2,300 teachers. It was also estimated that about fifty teachers each year (education officer, grade III, and grade A) would take posts in secondary schools, i.e. 250 teachers over the five-year period. The total requirement[5] for teachers was, therefore, about 5,550. To meet this requirement a plan was drawn up under which the proportion of the requirement to be met by grade C teachers would be cut to the minimum, while the rate of training grade A teachers would be increased as quickly as possible (see Table 14).

There remained only the question of how large the intakes to the teachers' colleges in 1968 and 1969 should be. (These teachers would begin to teach in 1970 and 1971.) It was clear that an output of less than 1,200 teachers per annum in the

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[1] There is also an effective maximum size of a college if satisfactory arrangements for teaching practice and for its supervision are to be made. In some parts of Tanzania there will probably be real difficulty in organizing teaching practice for 240, while in others communications and population densities are more favourable. Colleges of up to 400 students are envisaged.

[2] Nearly all of these grade A teachers will teach in primary schools, but a few will enter secondary schools each year.

[3] Standard subvention additions of £67 or £100 for a grade C teacher and £100 or £133 for a grade B teacher.

[4] For project education, 4,200; and for education, 4,400, in Volume II of the plan.

[5] Including 1,500 teachers to replace those withdrawing from service.

TABLE 14. Number of teachers expected to qualify for service in the years 1965-69

| Teachers newly qualified in January | 1965[1] | 1966[1] | 1967 | 1968 | 1969 | Total |
|---|---|---|---|---|---|---|
| Grade A (and education officer III) | 233 | 310 | 600 | 720 | 840 | 2 703 |
| Grade C | 705 | 860 | 620 | 530 | 120 | 2 835 |
| Total | 938 | 1 170 | 1 220 | 1 250 | 960 | 5 538 |

NOTE
1. Actual enrolment figures 1964; grade A figures include grade B students who entered direct from secondary schools

SOURCE
Ministry of Education

1970s would be defensible only in the face of the most severe of financial situations and this figure was therefore adopted for planning purposes for the 1968 intake. The further expansion of the total intake to 1,500 students in 1969 was intended primarily to enable the government to encourage a more rapid expansion of primary school facilities in the next plan period if financial circumstances allow, thus ensuring that the next plan need not be so severely limited by the prospective supply of qualified teachers as its forerunners have been.

## *Secondary school teachers*

In secondary education the policy adopted is to train every available undergraduate student to become a teacher by means of a course run concurrently with their degree course by the department of education at University College, Dar es Salaam. The limitation on the total number of students available is set by the manpower requirements of competing occupations; the current arrangement is that 50 per cent of bursaries awarded to arts students are reserved for those who agree to undertake the education course and up to 30 per cent of the bursaries for science students are similarly reserved. Since all holders of government bursaries have to sign an undertaking either to serve the government or to find employment approved by the government in the five years following graduation, the future supply of graduate teachers seems fairly well assured. However, the first graduates from this scheme will not graduate until April 1967 and their number will only become adequate to meet the needs of expansion (sixty per annum) from 1968 onwards; the replacement of expatriate graduates cannot be expected to be completed before an average rate of input to the schools has been maintained at an average of over 200 per annum for five or six years.

If the rate of expansion of secondary education remains the same in the period 1969-74 as that now projected for 1964-69, the number of posts established for graduates in 1974 will be about 1,100.[1] To meet this requirement there may be about 150 of the current teaching force still in service (mostly holders of 'other degrees' who will have become Tanzanian citizens) and the output of the University of East Africa. If it is assumed that the bursary arrangements for education courses are continued throughout the period 1964-74, then nearly 1,000 arts graduates and just over 500 science graduates can be expected to become available for the secondary schools[1] to fill some 950 posts, half of them for holders of degrees including mathematics or science. Thus, even if some wastage is allowed for, it seems that the supply of science teachers will be roughly in balance with demand in 1974 and that the proportion of arts undergraduates required to take education courses can be reduced in the not too distant future.

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[1] That is, 500 in 1964 and sixty per annum for ten years = 1,100.

The situation will, however, change rather dramatically when the replacement of expatriates has been completed. Even with a reduced output of 'arts' teachers, the number of trained teachers graduating in 1974 will be between 200 and 250, of whom 120 will be science teachers. It is in preparation for this point that grave decisions will have to be taken. Either the rate of expansion of secondary schools will have to be approximately tripled—increasing the rate of creation of graduate posts from sixty per annum to about 180—or the proportion of graduates allowed under the establishment formula can be increased, or the rate of producing secondary school teachers will have to be cut, with effect from the university intake of 1972.

The first of these alternatives is obviously attractive, but its implications in terms of increased annual recurrent expenditure will have to be considered carefully in terms of priorities. The second has potential advantages in the quality of teaching to be offered in secondary schools but would be difficult to implement, except in the case of new posts; the third is clearly the least attractive alternative, except perhaps if it is applied to a small extent as a temporary measure. To the extent that the alternative of increasing the rate of expansion is adopted, there will be considerable implications for the planning either of additional capital developments or of ways and means of making a more intensive use of existing teaching facilities, a possibility which should become increasingly practical as the concentration of population and of upper primary day schools in the vicinity of secondary schools proceeds.

## *Teachers for technical education*

Plans for the generation of a supply of indigenous teachers for technical education depend, as has been seen above, largely upon the supply of candidates with suitable experience. The four Tanzanian education officers recorded as serving in June 1964 will be joined by thirty-four others, for whom arrangements have already

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[1] Estimates calculated by application of the bursary allocation assumptions to the projection of university intakes for 1966-71 given in: A.C. Mwingira, op. cit.

TABLE 15. Overseas teacher-training programme—technical education

| Number of trainees and type of experience before going overseas | Expected date of return to Tanzania | | | | | |
|---|---|---|---|---|---|---|
| | July 1964 | Dec. 1964 | July 1965 | Dec. 1965 | July 1967 | July 1969 |
| Junior assistant technical instructors (14): | | | | | | |
| with city and guilds qualifications | 1 | 1 | | | 1 | |
| without city and guilds qualifications | | 4 | 1 | 6 | | |
| Other recruits (20): | | | | | | |
| with secondary education and technician training | | | | | | 4 |
| with craft training and city and guilds qualifications[1] | | | | | 16 | |
| Total (34): | 1 | 5 | 1 | 6 | 17 | 4 |

NOTE

[1] The sixteen trainees included here who will not be recruited from among serving teachers will each have less than one year of industrial experience before entering their teacher training

SOURCE
Ministry of Education

been completed, by 1969. It is significant that fourteen of these new technical teachers will be drawn from the ranks of serving teachers, that twenty will be recruited with little or no industrial experience and that no candidates have so far been found in industry who have any length of experience behind them and who are both suitable and willing to become technical teachers (Table 15).

From these somewhat dismal figures illustrating the limitations on the supply of suitable candidates for technical teaching it is clear that dependence on expatriates must continue, especially if there is to be expansion of technical education. In recruiting the necessary expatriates particular care is being taken to seek out those with a special concern for developing technical education in accordance with Tanzania's own needs; in this connexion it is the current policy to seek arrangements with institutions in developed countries under which secondments of experienced teachers are made to Tanzania during the period in which counterparts are being trained.

The immediate prospects for recruiting more candidates for technical teacher training are bleak, but these are expected to improve once the expanded output from the post-secondary technician courses at Dar es Salaam Technical College have begun to gain working industrial experience. In the meantime, as an element of technical education is developed within the general secondary school curriculum, there are proposals to organize a course in teaching vocational subjects at Dar es Salaam Teachers' College in association with the general teacher-training programme. The use of the technical college for teaching practice in this connexion will help to create stronger links and greater understanding between technical education and the rest of the education system.

### *Staff for teachers' colleges*

It has already been pointed out that the prospects of finding an adequate number of suitably qualified and experienced Tanzanian teachers for transfer to the teachers' colleges are far from bright. It is nevertheless regarded as most important that advance plans should be made to seize opportunities when they arise. With this end, among others, in view considerable advances have been made recently in opening up avenues of promotion for primary school teachers. It is now possible for primary school teachers who enter the profession as grade A teachers (or with lower qualifications) to gain promotion to education officer grades, not only in administrative capacities but also in purely professional capacities as primary school inspectors or as tutors in teachers' colleges. One of the functions of the new Institute of Education, in which the University College, Dar es Salaam, is associated with all the teachers' colleges and with the Ministry of Education, will be to supervise and co-ordinate the professional studies leading up to promotion into teacher-training posts. Overseas courses for selected serving teachers are also used as a means of bringing teachers into contact with educational developments elsewhere. It remains true, however, that, given the paucity of Tanzanian teachers now serving in teachers' colleges who have both the academic qualifications required to teach post-secondary students and adequate professional experience of work in primary schools, the dependence upon expatriates in this sector must continue for a considerable time. It is perhaps in teacher training that the factors of professional experience of working conditions in Tanzania and continuity of service among tutorial staff are most important. Special efforts are therefore being made for teacher training to make inter-governmental arrangements and arrangements with the managing agencies of the teachers' colleges which will give the greatest possible continuity while the most promising Tanzanian candidates for teacher-training posts are gaining the necessary preliminary experience.

## The upgrading of serving teachers

One further aspect of prospects for the supply of teachers which must be taken into account is that of upgrading, which can take place either by promotion 'on merit' or by promotion as the result of performance in examination. Two approaches to the provision of upgrading courses for serving grade C teachers have been tried. In the first of these approaches about 130 teachers were selected each year for full-time in-service courses at a teachers' college. The method—however successful it may have been in giving special preparation for teaching in the upper standards of the primary school—was expensive because teachers were seconded on full salary and unpopular because so few teachers could be selected for participation. It was, therefore, replaced by a system under which teachers undertook a correspondence course covering the academic aspects of the course followed by an examination; teachers selected as a result of this examination were then admitted to short professional courses held during vacations at the teachers' colleges.

At the time of writing there are considerable doubts about the efficacy of this procedure. The first and most obvious question is whether a correspondence course on academic subjects can be used as a reliable selector of teachers who will merit promotion on professional grounds. The second question—concerning the whole purpose of upgrading—is whether it is intended to fit teachers to teach higher standards or to improve teachers' work with the standards already familiar to them. Now that the plan to train large numbers of grade A teachers whose work will not be restricted to the upper standards has been adopted, it would seem that the second purpose is rapidly becoming more relevant. In these circumstances the work of primary school inspectors (who are employees of the Ministry of Education, not of the local education authorities) in organizing in-service courses throughout the year would seem to be most clearly relevant. In this way it will be possible to work towards widespread improvements in professional standards and to select candidates for courses leading to promotion on the basis of their professional interests and capacities rather than their ability to absorb and reproduce exercises from a correspondence course.

The upgrading of teachers in higher grades has not presented a great problem so far, although it may do so in future. The reason is connected largely with the rapid promotion rates which have been associated with the Africanization of posts of administrative responsibility. Teachers gaining headships of secondary schools or posts as regional and district education officers have usually been promoted in consequence. The recruitment of large numbers of grade A teachers, who will naturally compare their own promotion prospects with those of their peers in other occupations, can be expected to give rise to pressures for the organization of upgrading courses (particularly for candidates headships of primary schools), but no institutional arrangements have been made so far to meet this need.

## The salaries of teachers and their conditions of service in relation to teacher supply

Perhaps one of the most remarkable features of teacher supply in Tanzania is the fact that it is possible to reach broad policy conclusions without direct reference to the salaries of teachers or to comparisons with the terms of service found in other occupations which can be expected to compete for the services of school leavers and university graduates. This situation arises directly from the adoption by the government of the salary structure recommended in the Adu report of 1961, under which entry points to the various careers in the public service were fixed not so much in accordance with the nature of the job but largely by direct reference to the educational qualifications held by appointees. Since a very large proportion of those holding educational qualifications are in fact employed in the public service, this approach to the setting of entry points has made considerations of initial salary relatively unimportant in recruiting local Tanzanian teachers.

As a result, other aspects of the terms of service and prospects of new appointees have become correspondingly more important. New recruits to the teaching profession seem to have been regarded as being at a disadvantage by comparison with their peers in promotion prospects and in the fact that nearly all teachers must, of necessity, work in rural areas.

A salary award was made with effect from the beginning of 1965 but, although the entry point for grade A teachers was raised by 10 per cent from £300 per annum to £330 per annum[1] the greater part of the award, estimated to cost the government £400,000 in a full year, went to pay salary increases to the lowest paid grade C teachers,[2] an award which reflects the objective of the government to achieve a more equal distribution of income among wage and salary earners rather than a concern to enhance the attraction of a particular occupation.

The 10 per cent award at the entry point of grade A teachers can be expected to help somewhat in attracting higher-quality applications for admission to teachers' colleges (provided of course that it is not followed by parallel increases in other branches of the public service); however, the confidence of the Ministry of Education that the large number of recruits for whom training provision will be made[3] can be attracted into teaching does not rest on the initial salary considerations or on the prospect of high salaries gained without promotion. (The highest point of the salary scale for grade A teachers remained unchanged by the recent salary award and the length of the scale was only slightly reduced, from eighteen points to fifteen points.) The trend which seems to be currently running in favour of the recruitment of teachers at this level is that by which the promotion prospects in competing occupations are now declining[4] for new entrants while the size of the secondary school output is increasing. This may, of itself, be sufficient to ensure that an adequate number of teachers is recruited for the primary schools, but the quality of the recruits and the ability of the schools to retain the service of the best of them once their period of obligation to serve the government is past[1] seems likely to depend to a considerable extent on the way in which the teaching service, for primary school teachers as well as others, is moulded to provide a career structure with promotion opportunities adequate in both quantity and value to make the carreer prospects of the newly trained teachers fully comparable with those of men and women entering other occupations at the same levels of education.

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[1] And for education officers, grade III (non-graduate) from £468 to £540.

[2] The entry point for grade C teachers was raised from £141 per annum to £180 per annum.

[3] The published plan makes provision for intakes of secondary school leavers to teachers' colleges of 600, 720, 840, 1,200 and 1,500 students in the years 1965-69 (inclusive) compared with 320 in 1964.

[4] In the years immediately after independence opportunities for promotion of Tanzanian citizens, particularly Africans, were greatest in fields where Tanzanian citizens were taking posts of responsibility for the first time. The proportion of educated Tanzanians who were teachers was very high; consequently the promotion prospects in teaching for young teachers were relatively poor.

## *The distribution of teachers*

One other step which is being taken in the course of implementing the five-year plan is to provide fringe benefits, in the form of good-quality housing at low rental, for primary school teachers who are willing to serve in the remote and less popular areas. Tanzania is certainly not alone in having problems of maldistribution of the best-quality teachers, who tend to concentrate particularly in those areas from which teachers have traditionally been recruited. The application of quotas of promotions to each area may result in some less qualified teachers being promoted before some of their more skilled colleagues in the more attractive parts of the country. If this helps to retain the services of some of the more gifted teachers in difficult areas, there is every reason to believe that this mechanism should be used deliberately to discriminate in favour of the less attractive part of the country if a serious attempt is to be made to develop the potential of children throughout the country. The importance of the supply of good-quality teachers to individual parts of the country is seen to be particularly great when the political fact that secondary school places must be equitably distributed between the various Regions of the country is taken into account. Failure to provide an adequate primary education in some areas because of failure to achieve a satisfactory distribution of teachers can lead to a real waste of the resources devoted to secondary education, simply because the proportion of pupils admitted whose primary educational experience has been thereby limited or distorted is considerably increased. Such pupils must, of necessity, have a reduced chance of taking full benefit from the secondary education courses.

In considering the problem of distribution of teachers the possibility of central control of the postings of individual teachers is bound to arise. Current policy in Tanzania is by implication to reject this possibility.

The adoption of the Adu report recommendations that all teachers should receive the same salaries whether employed by the government (as civil servants), local education authorities or voluntary agencies did not, of itself, lead to the establishment of strictly comparable conditions for all teachers. This was because government teachers (many of whom have been seconded to local education authority services since these services were set up in 1962) retained some fringe benefits, of which the most important were travel allowances on leave and disturbance allowances in the event of their being transferred to a new post, which other teachers did not enjoy as of right.

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[1] Plans for teachers and other cadres of trained manpower to serve 'on national service terms' for a period immediately after completing their training have recently been announced.

The process of establishing strict comparability of terms of services among teachers was, however, given a strong impetus by the restriction of the salary award of January 1965 to government teachers and members of the Unified Teaching Service.[1] These terms, which are advantageous to all teachers, include the protection of a member's employment (by a given employer though not necessarily in a given school) and, *ipso facto*, restrict the power of the government to direct the postings of all but its own employees and new entrants to the service; the latter are strictly rationed between the local education authorities. No further appointments of Tanzanian citizens to teaching posts in the government service except on Unified Teaching Service terms are being made, and the condition is laid down that whenever a government teacher is offered a promotion (other than to an administrative or inspectorate post) it can only be made if the teacher joins the Unified Teaching Service. The Government arrangement by which initial postings can be controlled may prove adequate to prevent actual vacancies in established posts from clustering in the most backward districts; but it is hardly likely to help those districts which need to concentrate on quality of education in order to overcome their handicaps, unless vigorous efforts are made in other directions as well: promotion prospects must be enhanced, housing and working conditions improved, and better communications provided in the areas which are most affected by the shortage of teachers.

## *Salaries of graduates*

The salaries of Tanzanian graduate teachers are very strictly governed by Adu report principles and there has been no change in the salary scales at this level since the 'Adu' structure was adopted. No amount of manipulation of the salary structure will increase the total supply of local graduates which is limited by the history of the education system and the cost of university places today, not by any lack of inclination for degree courses. The policy of freezing the salary level for newly qualified graduates has much to commend it—if government policy is aimed at making the supply of graduates come more nearly into balance with requirements and if no further inducements are needed to ensure that university places are filled, there is an obvious logic in resisting the argument of shortage for a salary increase which would simply increase the price of high-level manpower and therefore of future development.

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[1] See Chapter 2.

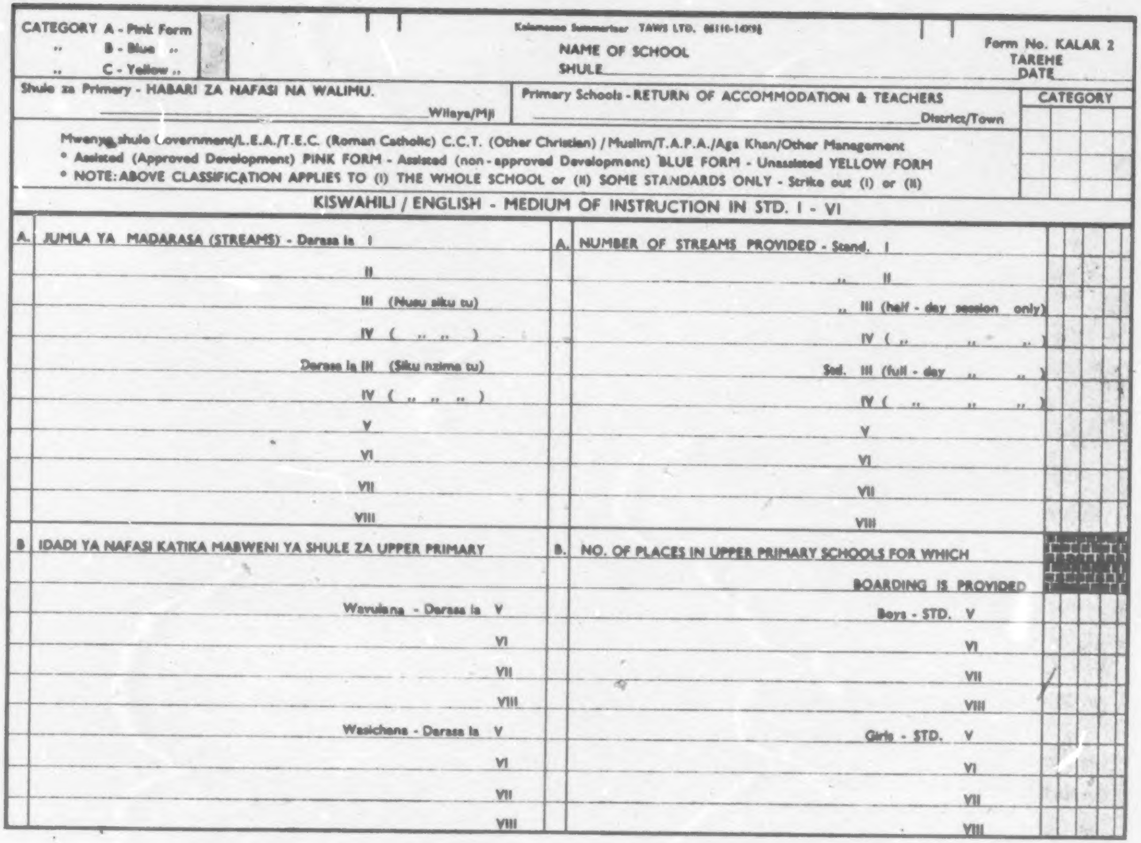
The establishment of equality in salary treatment for new Tanzanian graduates in general does not, however, solve the problem of allocation of the graduates between the competing occupations open to them. This is the underlying reason why a system of tied bursaries for university study has been introduced, under which students are offered bursaries covering the major part (or all) of the cost of their attendance at university only on condition that they agree to serve as the government directs for five years after graduation. As in the case of primary schools the prospects of secondary schools attracting high-quality teachers and retaining their staff beyond the period of obligation to the government will probably depend on such factors as the promotion policy which is followed by the Ministry of Education, and on the conditions under which the teachers will have to work.

## *Salaries of expatriate teachers*

The salary position of expatriate graduates, whose employment seems essential for about nine years ahead, is quite different from that of Tanzanian teachers. While it is the clear policy of the government to pay to expatriates from local funds only the same basic salary as is paid to Tanzanians in equivalent posts, it is also easily recognized that the cost of living for expatriates is significantly higher than for Tanzanians; but the overseas addition which is paid to expatriates is more clearly related to the market rates in their countries of origin than to the cost of living in Tanzania. This addition is paid in most cases by the Tanzanian Government, which is then reimbursed by the sponsoring government, although some countries prefer to supply teachers 'in kind', making direct contracts with the teachers.

In recruiting expatriate teachers from a variety of overseas services, Tanzania is competing in a variety of markets in which different prices prevail. The salary which may be needed to attract a graduate physics teacher with three years' experience capable of teaching up to university-entry level will depend to a considerable extent on his country of origin. Thus the recent award of a 12.5 per cent salary increase payable as overseas addition to United Kingdom civil servants (including teachers) in Tanzania may have been just adequate to attract a particular teacher from the United Kingdom but not adequate to attract a teacher of similar quality and experience from the United States of America or Australia. (The even more recent award of a 13 per cent salary increase to teachers in the United Kingdom will probably make recruitment from that source immediately more difficult.) The difficulties which can arise when people are receiving very different salaries for apparently very similar jobs do not need elaboration. It seems clear, however, that, unless all expatriate teachers are to be recruited from one source (which would be quite contrary to declared government policy), they will have to be paid differently. Some system by which the expatriate cost of living element could be recognized, equalized and paid in Tanzania for all expatriates while the inducement element of an expatriate's salary could be paid in his country of origin, should not be beyond the wit of man to devise. The introduction of such a system, combined with a policy of promotion designed to ensure that total emoluments remain sufficient to attract an adequate number of teachers to Tanzania and that the best expatriate teachers are given ample reason in terms of career prospects on their return home to extend their service over periods of four to eight years, can contribute at least as much to the sound foundations of the expanded secondary school technical education and teachers' college systems as the more tangible benefits of bricks and mortar.

# Appendix



CATEGORY A - Pink Form
" B - Blue "
" C - Yellow "

NAME OF SCHOOL
SHULE__________

Form No. KALAR 2
TAREHE
DATE______

Shule za Primary - HABARI ZA NAFASI NA WALIMU.
__________ Wilaya/Mji

Primary Schools - RETURN OF ACCOMMODATION & TEACHERS
__________ District/Town

CATEGORY

Mwenye shule Government/L.E.A./T.E.C. (Roman Catholic) C.C.T. (Other Christian) / Muslim/T.A.P.A./Aga Khan/Other Management
* Assisted (Approved Development) PINK FORM - Assisted (non-approved Development) BLUE FORM - Unassisted YELLOW FORM
* NOTE: ABOVE CLASSIFICATION APPLIES TO (I) THE WHOLE SCHOOL or (II) SOME STANDARDS ONLY - Strike out (I) or (II)

KISWAHILI / ENGLISH - MEDIUM OF INSTRUCTION IN STD. I - VI

| | |
|---|---|
| A. JUMLA YA MADARASA (STREAMS) - Darasa la I | A. NUMBER OF STREAMS PROVIDED - Stand. I |
| II | " II |
| III (Nusu siku tu) | " III (half - day session only) |
| IV ( " " ) | IV ( " " " ) |
| Darasa la III (Siku nzima tu) | Std. III (full - day " " ) |
| IV ( " " " ) | IV ( " " " ) |
| V | V |
| VI | VI |
| VII | VII |
| VIII | VIII |
| B IDADI YA NAFASI KATIKA MABWENI YA SHULE ZA UPPER PRIMARY | B. NO. OF PLACES IN UPPER PRIMARY SCHOOLS FOR WHICH BOARDING IS PROVIDED |
| Wavulana - Darasa la V | Boys - STD. V |
| VI | VI |
| VII | VII |
| VIII | VIII |
| Wasichana - Darasa la V | Girls - STD. V |
| VI | VI |
| VII | VII |
| VIII | VIII |

Form 1 Primary school facilities and teachers

Forms of different colours are used by schools with different status according to the Government subvention system for education. This is to facilitate later collation of the statistics with financial data (Form 2) in calculating unit costs Subsequent preparation of district summaries is carried out by district education officers

Original size of form, 13.5 × 9 in.

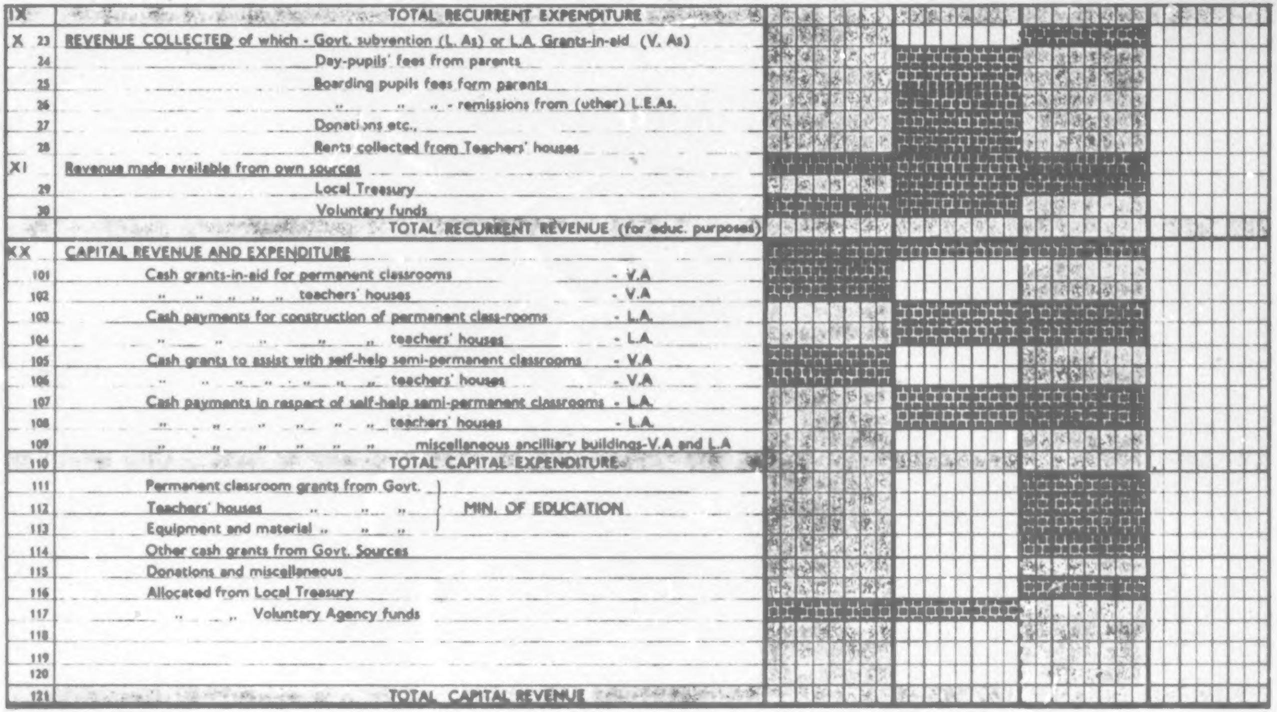
| | | | |
|---|---|---|---|
| C. | IDADI YA WAALIMU - WENYE CHETI CHA GRADE "A" - WAKIUME | C. | TEACHERS EMPLOYED - GRADE "A" Qualification - MEN |
| | WAKIKE | | - WOMEN |
| | ,, ,, ,, ,, "B" - WAKIUME | | ,, "B" ,, - MEN |
| | WAKIKE | | - WOMEN |
| | ,, ,, ,, ,, "C" - WAKIUME | | ,, "C" ,, - MEN |
| | WAKIKE | | - WOMEN |
| | Wenye vyeti vingine vinavyo kubaliwa na Idara ya elimu - WAKIUME | | Other recognised professional qualifications - MEN |
| | ,, ,, ,, ,, ,, ,, ,, WAKIKE | | ,, ,, ,, ,, - WOMEN |
| | Wasio na ,, ,, ,, ,, ,, WAKIUME | | Without ,, ,, ,, - MEN |
| | ,, ,, ,, ,, ,, ,, WAKIKE | | ,, ,, ,, ,, - WOMEN |
| | JUMLA YA WAALIMU (WAKIUME NA WAKIKE) | | TOTAL NO. OF TEACHERS (MEN & WOMEN) |
| D. | MAENDELEO YA MWAKA HUU | D. | DEVELOPMENTS IN CURRENT SCHOOL YEAR |
| | (a) Madarasa mapya yaliyofunguliwa pamoja NA WALIMU | | (a) New classrooms opened WITH TEACHERS |
| | - darasa la I | | Std. I |
| | ,, ,, II | | ,, II |
| | Kwa madarasa mapya ,, ,, III (nusu siku tu) | | For new classes ,, III (half - day sessions only) |
| | ,, ,, IV ( ,, ,, ,, ) | | ,, IV ( ,, ,, ,, ) |
| | ,, ,, III (siku nzima tu) | | ,, III (full - time ,, ,, ) |
| | ,, ,, IV ( ,, ,, ,, ) | | ,, IV ( ,, ,, ,, ,, ) |
| | Chumba cha tatu (kwa masomo ya siku nzima kwa darasa la III na la IV | | Third classroom (for full - time teaching for Std. III and IV |
| | ,, ,, ,, - darasa la V | | ,, ,, - Std. V |
| | ,, VI | | ,, VI |
| | ,, VII | | ,, VII |
| | ,, VIII | | ,, VIII |
| | (b) Jumla ya walimu walioajiriwa ambao hawa kuwa wakifundisha katika shule hii mwaka uliopita | | (b) Teachers employed who were not in the same school last year. TOTAL |
| | AMBAO - (i) Waalimu wapya waliotoka T.T.C. | | OF WHOM (i) Newly qualified from T.T.C. |
| | (ii) Wenginea | | (ii) Others |

REVENUE AND EXPENDITURE - PUBLIC (ASSISTED) SCHOOLS - YEAR ______

Form No. KALAR 5.

ENTER ALL AMOUNTS IN SHILLINGS ONLY - OMIT CENTS ______ LOCAL EDUCATION AUTHORITY / VOLUNTARY AGENCY

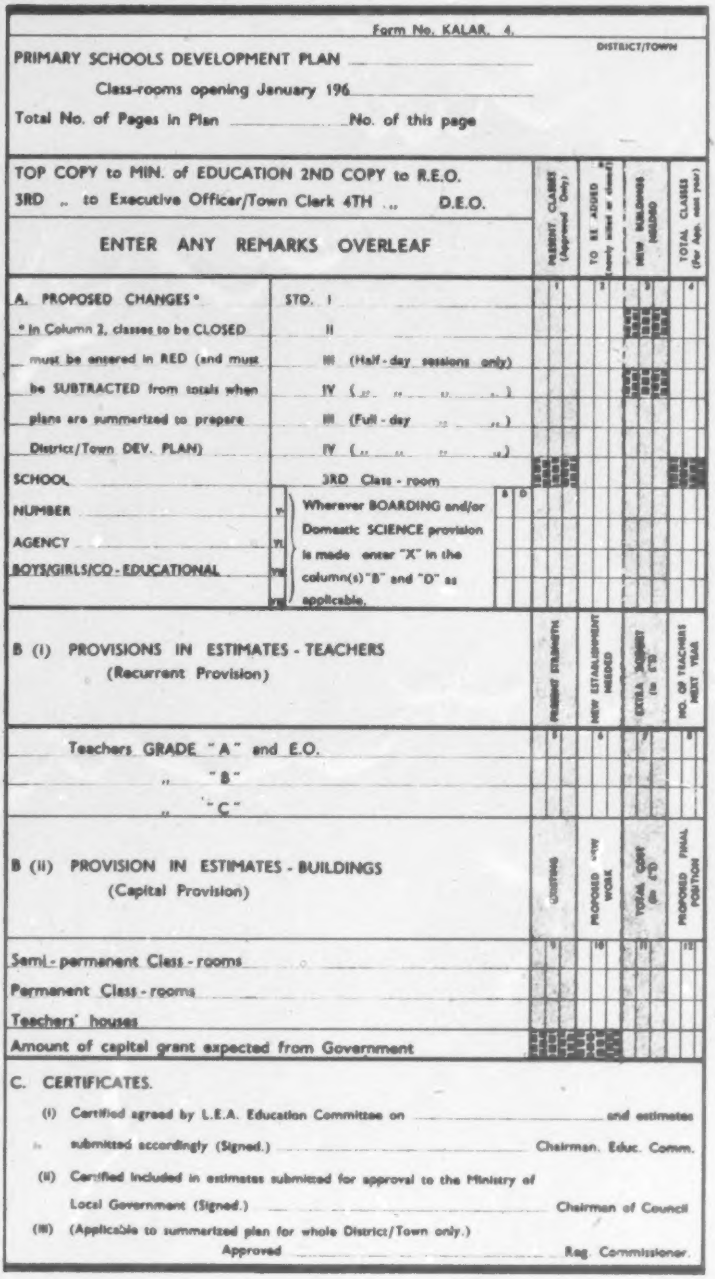
| ITEM NO. | RECURRENT REVENUE AND EXPENDITURE | LOCAL AUTHORITY SCHOOLS | VOLUNTARY AGENCY SCHOOLS | | TOTAL |
|---|---|---|---|---|---|
| | | | PAID DIRECTLY BY L. A. OR L. A GRANT | PAID BY V.A ADDITIONAL TO GRANT ASSISTANCE | |
| I | Teachers' Salaries and Responsibility Allowances | | | | |
| 1 | L. A. Teachers | | | | |
| 2 | Government Seconded teachers | | | | |
| 3 | V. A. Teachers | | | | |
| II | School Equipment and Materials | | | | |
| 4 | Materials purchased by L.A. } excluding expenditure of "equipment grants" for | | | | |
| 5 | Grants-in-aid to V.A. new class-rooms | | | | |
| III | Maintenance of Buildings | | | | |
| 6 | School Buildings and furniture-L.A. } excluding expenditure of "equipment grants" for | | | | |
| 7 | Grants-in-aid to V.A. Schools new class-rooms | | | | |
| IV | Administrative Expenses | | | | |
| 8 | Clerical Staff | | | | |
| 9 | Stationery and office expenses | | | | |
| 10 | Examination expenses | | | | |
| 11 | Committee and Miscellaneous | | | | |
| 12 | Teachers' allowances, tranport, leave travel | | | | |
| | SUB-TOTAL HEADING I - IV (I.e Approved Expenditure) | | | | |
| V | Boarding Fees Remission | | | | |
| 13 | Paid to other L. As | | | | |
| 14 | " " V. As | | | | |
| VI | Services, Boarding, Water, Light etc. | | | | |
| 15 | Foodstuffs | | | | |
| 16 | Wages of cooks and auxiliary staff | | | | |
| 17 | Water, fuel and light | | | | |
| 18 | Equipment and miscellaneous material | | | | |
| VII | Teachers' Houses | | | | |
| 19 | Repairs and maintenance | | | | |
| VIII | Miscellaneous and Approved Expenditure | | | | |
| 20 | School uniforms | | | | |
| 21 | Transport of schoolchildren | | | | |
| 22 | | | | | |



| | | |
|---|---|---|
| IX | | TOTAL RECURRENT EXPENDITURE |
| X | 23 | REVENUE COLLECTED of which - Govt. subvention (L. As) or L.A. Grants-in-aid (V. As) |
| | 24 | Day-pupils' fees from parents |
| | 25 | Boarding pupils fees form parents |
| | 26 | " " " - remissions from (uther) L.E.As. |
| | 27 | Donations etc., |
| | 28 | Rents collected from Teachers' houses |
| XI | | Revenue made available from own sources |
| | 29 | Local Treasury |
| | 30 | Voluntary funds |
| | | TOTAL RECURRENT REVENUE (for educ. purposes) |
| XX | | CAPITAL REVENUE AND EXPENDITURE |
| | 101 | Cash grants-in-aid for permanent classrooms - V.A |
| | 102 | " " " " " teachers' houses - V.A |
| | 103 | Cash payments for construction of permanent class-rooms - L.A. |
| | 104 | " " " " " teachers' houses - L.A. |
| | 105 | Cash grants to assist with self-help semi-permanent classrooms - V.A |
| | 106 | " " " " " " " " teachers' houses - V.A |
| | 107 | Cash payments in respect of self-help semi-permanent classrooms - L.A. |
| | 108 | " " " " " " teachers' houses - L.A. |
| | 109 | " " " " " " miscellaneous ancilliary buildings-V.A and L.A |
| | 110 | TOTAL CAPITAL EXPENDITURE |
| | 111 | Permanent classroom grants from Govt. } MIN. OF EDUCATION |
| | 112 | Teachers' houses " " " } MIN. OF EDUCATION |
| | 113 | Equipment and material " " " } MIN. OF EDUCATION |
| | 114 | Other cash grants from Govt. Sources |
| | 115 | Donations and miscellaneous |
| | 116 | Allocated from Local Treasury |
| | 117 | " " Voluntary Agency funds |
| | 118 | |
| | 119 | |
| | 120 | |
| | 121 | TOTAL CAPITAL REVENUE |

**Form 2** Primary education financial data

District education officers complete one form for each local authority
Blocking of the columns on the right is used as an aid to subsequent analysis
Original size of form, 13.5 × 11 in.



Form No. KALAR. 4.

PRIMARY SCHOOLS DEVELOPMENT PLAN ______________ DISTRICT/TOWN

Class-rooms opening January 196______________

Total No. of Pages in Plan ______________ No. of this page

TOP COPY to MIN. of EDUCATION 2ND COPY to R.E.O.
3RD „ to Executive Officer/Town Clerk 4TH „ D.E.O.

ENTER ANY REMARKS OVERLEAF

PRESENT CLASSES (Approved Only) | TO BE ADDED (newly added or closed) | NEW BUILDINGS NEEDED | TOTAL CLASSES (For App. next year)

1 | 2 | 3 | 4

**A. PROPOSED CHANGES***

* In Column 2, classes to be CLOSED must be entered in RED (and must be SUBTRACTED from totals when plans are summarized to prepare District/Town DEV. PLAN)

SCHOOL ______________

NUMBER ______________

AGENCY ______________

BOYS/GIRLS/CO-EDUCATIONAL ______________

STD. I ______________

II ______________

III (Half-day sessions only)

IV („ „ „ „)

III (Full-day „ „)

IV („ „ „ „)

3RD Class-room

V

VI

VII

VIII

Wherever BOARDING and/or Domestic SCIENCE provision is made enter "X" in the column(s) "B" and "D" as applicable.

B | D

**B (i) PROVISIONS IN ESTIMATES - TEACHERS**
(Recurrent Provision)

PRESENT STRENGTH | NEW ESTABLISHMENT NEEDED | EXTRA BUDGET (in £'S) | NO. OF TEACHERS NEXT YEAR

5 | 6 | 7 | 8

Teachers GRADE "A" and E.O.

„ "B"

„ "C"

**B (ii) PROVISION IN ESTIMATES - BUILDINGS**
(Capital Provision)

EXISTING | PROPOSED NEW WORK | TOTAL COST (in £'S) | PROPOSED FINAL POSITION

9 | 10 | 11 | 12

Semi-permanent Class-rooms ______________

Permanent Class-rooms ______________

Teachers' houses

Amount of capital grant expected from Government

**C. CERTIFICATES.**

(i) Certified agreed by L.E.A. Education Committee on ______________ and estimates submitted accordingly (Signed.) ______________ Chairman. Educ. Comm.

(ii) Certified included in estimates submitted for approval to the Ministry of Local Government (Signed.) ______________ Chairman of Council

(iii) (Applicable to summarized plan for whole District/Town only.)
Approved ______________ Reg. Commissioner.

Form 3 Primary education development

This form is used to prepare planning applications for new primary schools or extensions. The forms are completed by district education officers and printed in groups of four with interleaved carbon paper so that all concerned with the application get immediate copies

Details of existing facilities are here collated with staff and financial requirements for development

Original size of form, 11 × 6 in.

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# The planning of primary education in Northern Nigeria

J.F. Thornley

# Foreword

This monograph by James Thornley, a Senior Inspector with special responsibilities for primary education in Northern Nigeria, was prepared for the Institute in mid-1965 with the kind co-operation of the Regional Ministry of Education. It contains a detailed account of the 'planning administration' which has formed the basis for the co-ordinated growth of primary education.

The author shows that the planning of primary education in Northern Nigeria was a difficult and complex problem involving not only Government finance and policy, but also questions of how to convince the ordinary people, often uneducated themselves, that their children should be educated and that they should pay their share towards the cost. While it seems possible, in Northern Nigeria, to administer secondary education from a central ministry, the expansion of primary education itself would seem to demand decentralized administration as well as centralized planning.

The author demonstrates how the Northern Region is proceeding towards the ultimate aim of universal primary education by stages which reflect administrative, educational and financial factors and possibilities.

Plans of administration were proposed, both at the ministry and local levels, for unifying the primary schools in defined areas under one control for each area, and the appropriate legislation, regulations and arrangements for the collection of statistics were undertaken. The author shows how training courses for the necessary educational administrators formed a vital part of the machinery involving the local people in the new pattern of educational administration and also in ensuring the progress and assessment of the plan at the regional level.

Dealing with educational possibilities, the author stresses particularly the view, which is of great interest in the light of recent experience in the other Regions of Nigeria, that rapid expansion in primary education can only be successful if trained teachers are available to teach the newly formed classes and that, as far as is feasible, teacher training should precede growth. He provides information on how the school-building programme, and Unicef assistance in the form of essential school materials, have been fitted into the plan.

Perhaps the most important contribution made by James Thornley is his practical emphasis on costing as a controlling factor in formulating, programming and evaluating an educational plan. His examination of Government and local resources likely to be available for capital and recurrent expenditures on primary education shows how closely these expenditures are linked to the rate of economic growth and to the scale of external assistance. This is an argument for detailed planning and the most appropriate use of human and material resources in order to get the highest possible returns from expenditure.

A substantial contribution was made to this study by Raymond Lyons, a senior staff member of the IIEP, who co-operated closely with the author from its initial design to the final draft.

PHILIP H. COOMBS
Director, IIEP

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# Introduction

Northern Nigeria is one of the self-governing Regions of Nigeria. It was granted self-government on 15 March 1959, has its own Government,[1] a House of Assembly, a House of Chiefs (upper House) and an Executive Council, which formulates policy and directs executive action in accordance with legislation. Northern Nigeria is divided into thirteen Provinces which, in their turn, are subdivided into Native Authorities. The Provincial Commissioner, who is the Government representative in the Province, presides over a council composed of representatives of the chiefs, the Native Authorities and the people of the Province. They discuss provincial affairs, propose legislation, allocate funds and control all local activities. The Native Authorities constitute a responsible and influential system of local government and now include councillors elected by the people as well as those nominated or holding office by virtue of tradition. They administer various local services and activities and operate as 'proprietors' of primary and secondary schools.

The population, composed of many tribes speaking different languages and dialects, numbered 16,835,000 in 1952 and probably over 20 million in 1963, the heaviest concentrations being in the north and the north-west. As the analysed results of the 1963 census are not yet available, all the planning figures used here are based on projections of the 1952 figures.

Northern Nigeria is an agricultural Region, some 80 per cent of its active population being engaged in farming (50 per cent in market farming and 30 per cent in subsistence farming). The Region is self-sufficient in food. The average area of land per male cultivator is some four acres and the average farm income £8.0.0 per acre per year plus subsistence.

The public revenue of Northern Nigeria rose from £1.7 million in 1938 to £13.8 million in 1957-58, of which £6.7 million was received from the Federal

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[1] The term 'Government' as used in this study refers to the Government of Northern Nigeria as distinct from the Federal Government.

Government. During the same period, the revenue of all Native Authorities rose from £0.8 million to £9 million. The first development plan, running from 1 April 1955 to 31 March 1960, envisaged a total capital expenditure of £27 million, i.e., an average of £5.4 million a year; its was extended for two years with a proposed additional expenditure of £19 million, i.e., £9.5 million a year. The second development plan runs from 1 April 1962 to 31 March 1968, and allows for a total capital expenditure of some £99 million, i.e., £16.5 million per year.

As far as primary education is concerned, in 1957 the majority of schools were required to have a seven-year course; however, owing to the shortage of classes and teachers, most primary schools were 'junior' schools taking classes I to IV[1] and pupils were still selected for entry to 'senior' primary schools with boarding facilities to accommodate children from remote areas. All primary schools were then owned by 'proprietors', who were the sixty-four Native Authorities, and the twenty-six missionary societies which, for the purposes of education, were designated as Voluntary Agencies. All the primary schools were classified as aided or non-aided, according to their efficiency as judged by the Government Provincial Education Officer. The proprietor of an aided school received a Government grant based largely on the salaries of the teachers at that school. The remainder of the funds necessary to maintain the school came from school fees and other sources of income, such as taxes and mission funds. As almost all areas were served by several schools owned by different proprietors, there was no single authority for the planning of primary education in any given area, except the Government. But the Government was too remote to plan primary education and, in any case, it was only too anxious to encourage schools to be opened throughout the Region.

In 1961, out of an estimated total school-age population (6 to 13) of 2,874,000 only some 316,000, or 11 per cent, were enrolled in primary schools in Northern Nigeria. The enrolments were 81,300 in class I, 43,750 in class IV, but only 25,730 in class V and 16,300 in class VII. This sharp break between 'junior' and 'senior' primary is also reflected by the fact that only one-fifth of the pupils enrolled in class I reach class VII to form the basis for the intake into second-level schools.

Of the total enrolled in 1961, slightly less than 39 per cent were in Native Authority schools, slightly over 24 per cent in Roman Catholic mission schools and some 37 per cent in Protestant mission schools.

Primary school teachers are divided into several grades. The lowest is the unqualified teacher, followed by grade IV, which requires seven years of primary education plus one year of teacher training. These two grades are no longer being produced. Grade III teachers have seven years of primary education plus three years of teacher training. A further two years of teacher training is required for grade II. Grade I can be reached by grade II teachers, selected by merit, through further training or by those who have completed seven years of primary education, five years of secondary education and two years at advanced teacher-training colleges.

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[1] The use of the word 'class' to note the steps of the educational system is in accordance with local terminology. According to Unesco terminology, however, the word 'grade' is used in such a case while the word 'class' is defined as 'a group of pupils (students) who are usually instructed together during a school term by a teacher or by several teachers'.

It is against this background that educational development has to be considered, particularly the development of primary education.

# 1 The plan for educational development

## The Ashby Commission

In April 1959, a commission under the chairmanship of Sir Eric Ashby was appointed by the Federal Government 'to conduct an investigation into the needs in the field of post-School Certificate[1] and higher education over the next twenty years' for the whole of Nigeria. In order to carry out this work the commission obviously had to consider how to develop the basis of the educational pyramid, i.e., primary education.

For the Northern Region, the Ashby Commission's recommendations can be summarized as follows:

Out of 1,000 children aged 6 or 7, 280 should enter primary schools and 250 should complete primary education. Of these, twenty-five should enter secondary schools and twenty-two should complete secondary education. Of the twenty-two, fifteen should seek employment and seven should have further education. Of the seven, four or five should seek intermediate training and two or three should enter university.

By projecting the 1952 census figures, it was calculated that, if the Ashby targets were to be achieved, 104,000 children should complete primary education in 1970 and 2,912 (7 out of 250) of these should have post-School Certificate training. But in 1964, only 92,526 children were enrolled in class I, and this is the maximum number that can complete primary education by 1970. Therefore, the maximum number that can complete a full seven-year post-School Certificate by 1977 is 2,590 (92,500 × 7 divided by 250).

The Ashby Report also dealt with the supply and training of teachers and, in this connexion, it should be noted that, in 1961, Northern Nigeria had 10,645 primary school teachers, of whom only ninety-five had qualifications better than grade II, while 4,407 were unqualified. Now according to the Ashby Report, one teacher in fifteen should be grade I, and classes should average thirty-five pupils. Thus if, according to the Ashby Report and the projections from the 1952 census, 842,140 children were to be enrolled in primary schools in 1970, the number of grade I teachers would have to be 1,604 (842,140 divided by 35 × 15), as against the ninety-five available in 1961.

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[1] The School Certificate is received following an examination normally taken after five years of secondary schooling, which corresponds to the Unesco definition of the lower stage of general education at the second level.

The commission also stated that the main cost of teacher training should be borne by each Region, but that the Federal Government should give grants for the training of grade I teachers, whose salaries should be increased.

The Federal Joint Consultative Committee on Education endorsed the findings of the Ashby Report, except for the training of teachers in the sixth form[1] of secondary schools. It should be emphasized that the recommendations thus approved do not even envisage universal primary education in any foreseeable future. The first and most urgent need for a developing country, such as Northern Nigeria, is to produce the trained manpower necessary for its development, and the Ashby recommendations and their approval by the Government are a tacit recognition of the fact that economic development should come before the goal of universal primary education.

The next stage in the planning of educational development was the costing and phasing of the Ashby recommendations. This was the subject of the so-called Archer Report.

## The Archer Report

In November 1960, Mr. J. N. Archer was seconded from the United Kingdom Treasury to the Commonwealth Relations Office to advise on the costing and phasing of the Ashby recommendations. Like the Ashby Commission, Archer, in order to accomplish the task assigned to him, had to start at the foundation of the educational pyramid and consider the expansion of primary education required to reach the Ashby targets. He therefore (a) took the estimates of the total population, of the 6 to 7 age group, the corresponding total enrolments in primary schools (28 per cent) and the number of school leavers (25 per cent) for each year between 1960 and 1970; (b) projected these enrolments year by year between the seven classes of the primary course; (c) calculated from these projections the total number of class-rooms needed and, by deducting the number of available class-rooms, calculated the number of new class-rooms required each year; (d) estimated the capital cost of a class-room to the Government, taking into account the financial arrangements with the voluntary bodies; (e) calculated teacher requirements on the basis of the estimated school population year by year; (f) calculated the output of the various grades of teachers necessary to meet these requirements; (g) calculated the input into teacher-training colleges necessary to produce this output, taking into account wastage and failure; (h) on the basis of these input figures, and taking into account available buildings and staff, calculated the requirements of teacher training in terms of new buildings and additional staff.

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[1] The 'sixth form' comprises the last two years of secondary education and corresponds to the Unesco definition of the higher stage of general education at the second level.

All these calculations were made on the basis of various assumptions with regard to population, wastage of pupils, wastage of teachers, teacher qualifications, staffing ratios, building costs, grants to school proprietors, school fees, teacher's salaries, level of prices, etc.

The main conclusions reached by Archer were that some 11,000 class-rooms must be built between 1962 and 1967, at an average cost to the Government of £300 each, to catch up with requirements; and that 11,350 boarding places at £600 per place and 2,850 day places at £200 per place will have to be built for teacher training, properly allocated between grade II and grade III teacher-training colleges. The recurrent costs were calculated on the basis of the projected figures for teachers' salaries, to which were added boarding grants in the case of teacher-training colleges. The estimates of capital and recurrent expenditures and their phasing as recommended by Archer are shown in Tables 1 and 2 following. Archer warned that the greatest financial problem arising out of the Ashby recommendations would be the mounting recurrent costs which, even allowing for less generous staffing ratios than at present, would treble between 1960 and 1970.

## The Government plan

The Ashby recommendations and the Archer Report were widely discussed in Government circles. The task of the Government was to ensure, first, that educational facilities were spread more evenly over the Region, and, second, that all parts of the educational system develop in harmony and as economically as possible. The ultimate goal was the achievement of universal primary education as soon as practicable, with adequate provision of secondary schools, teacher-training colleges, technical and commercial colleges, etc. But the task of achieving this goal was so huge in terms of money and trained manpower that it could only be carried out by stages. And it was agreed that the first stage should be the achievement of the Ashby targets by 1970.

As far as primary education was concerned, it was decided that the artificial division between junior and senior primary schools must disappear and that every primary school should be potentially a full seven-year school. Thus future development must be directed to providing classes V, VI and VII for existing schools before opening new schools. And in areas where enrolment is low, both the building of new schools and the extension of existing ones to a seven-year course must be done simultaneously.

The next important step was to raise standards in primary schools by reducing the number of untrained teachers and by improving school supervision and inspection by the Ministry of Education. The purpose was to ensure an adequate flow of pupils into second-level education. The Government decided, therefore, to increase the output of teachers and, consequently, the number of places in teacher-training colleges.

The importance which the Government attaches to education, in general, and to primary education, in particular, is best illustrated by the figures for capital expenditure allowed in the current six-year development plan. Out of a total of £99 million, some £19 million, or 20 per cent, are allocated to education, and well over £9 million, or roughly half of the total allocated to education, is to be spent on primary education. The Government naturally realizes that substantial foreign aid will be needed to carry out this capital programme, and that a much greater burden than hitherto will fall on local resources to meet the increasing recurrent expenditure on education.

Tables 1 and 2 below show the capital requirements and the recurrent expenditure, actual or as stated in the Government development plan, and the corresponding Archer estimates.

As far as grants on capital account are concerned, the Government received from the Federal Government £200,000 in 1963/64 and £300,000 in 1964/65 for the expansion of primary education, and, in its return, it gave to the proprietors of primary schools £205,000 in 1962/63, £312,000 in 1963/65 and allocated £335,600

TABLE 1. Government capital requirements for education (£s)

| Year | Government development plan[1] | | | Archer estimates[1] | | |
|---|---|---|---|---|---|---|
| | Total | Primary | Teacher training | Total | Primary | Teacher training |
| 1962/63 | 1 700 085 | 265 000 | 520 000 | 3 820 000 | 700 000 | 1 700 000[2] |
| 1963/64 | 4 419 125 | 260 294 | 1 500 000 | 4 460 000 | 800 000 | 1 700 000 |
| 1964/65 | 3 357 355 | 260 294 | 1 439 680 | 4 080 000 | 700 000 | 1 500 000 |
| 1965/66 | 3 157 354 | 260 294 | 1 439 680 | 3 490 000 | 600 000 | 1 100 000 |
| 1966/67 | 3 157 354 | 260 294 | 1 439 680 | 2 900 000 | 500 000 | 650 000 |
| 1967/68 | 3 157 354 | 260 294 | 1 439 680 | 2 120 000 | 320 000 | 750 000[3] |
| Totals | 18 948 627 | 1 566 470 | 7 778 720 | 20 870 000 | 3 620 000 | 7 400 000 |

[1] The total expenditure for primary education and teacher training in the Government development plan is £9,345,190, whereas that in the Archer estimates is £11,020,000

[2] Including requirements for 1961/62

[3] Including requirements for 1968/69

TABLE 2. Government recurrent expenditure for education (£s)

| | Archer estimates | | | Actual | | |
|---|---|---|---|---|---|---|
| Year | Total | Primary | Teacher training | Total | Primary | Teacher training |
| 1962/63 | 5 410 000 | 2 225 000 | 870 000 | 4 514 000 | 1 600 700 | 765 800 |
| 1963/64 | 6 500 000 | 2 600 000 | 1 200 000 | 5 299 670 | 1 736 500 | 539 040[1] |
| 1964/65 | 7 710 000 | 3 000 000 | 1 550 000 | 5 997 850 | 2 113 060 | 707 000 |
| 1965/66 | 8 840 000 | 3 400 000 | 1 850 000 | | | |
| 1966/67 | 10 060 000 | 3 950 000 | 2 250 000 | | | |
| 1967/68 | 11 110 000 | 4 450 000 | 2 450 000 | | | |
| Totals | 49 630 000 | 19 625 000 | 10 170 000 | | | |

[1] This reduction is the result of the discontinuance of sandwich courses for grade III teachers to qualify as grade II

for 1964/65. The Government grants-in-aid to primary education on recurrent account are expected to amount to at least £4.5 million by 1970. At present, the Government grant to proprietors of primary schools covers approximately 61 per cent of the estimated total cost of £8.5.0 per pupil.

So much for the Government share of the total cost of primary education and teacher training. As for the proprietors—Native Authorities and Voluntary Agencies— they still have to find the remaining 39 per cent of the recurrent expenditure from fees, community collections and, in the case of Native Authorities, from local taxes. For their capital expenditure on primary schools, they receive from the Government a grant of 50 per cent of the cost of a new school or additions up to £350 per class-room, but still have to find the remaining 50 per cent. For teacher training, the recurrent grant is based on teachers' salaries with additions for boarding and day pupils, and represents about 75 per cent of the recurrent costs of each college. The capital grants vary considerably but cover a substantial proportion of the cost of a college.

It is clear that, though the Government is the largest contributor to both the capital and recurrent costs of primary education and teacher training, the proprietors make large contributions themselves. In 1962, some 150,000 pupils attended the 1,251 Native Authority primary schools and 210,000 the 1,317 Voluntary Agency primary schools, the higher number of pupils per school in Voluntary Agency schools being due to the fact that Voluntary Agencies have a higher proportion of schools providing a full seven-year course. Of the fifty-four teacher-training colleges in existence in 1963, only twenty-five were Government colleges; twenty-eight were Voluntary Agency colleges, and there was one non-aided college.

Clearly, the proprietors must be consulted and considered in any programme for expansion, which in fact could not proceed without their wholehearted co-operation. However, the diversity of proprietors—in religion, area of operation, size and financial resources—made a common policy difficult to achieve even in one area. A scheme had, therefore, to be devised with a view to embracing all proprietors in a given area under a single co-ordinating authority. This was the subject of the so-called Oldman Report.

## The Oldman Report—the Education Authorities

In 1961, Mr. H. Oldman was asked by the Government to undertake an inquiry into the problems of administration and finance raised by the development of primary education in Northern Nigeria. He produced his report in 1962.

Oldman recommended the separation of administrative and inspectorial duties, the consequent establishment of Education Authorities and the setting up of a course to train educational administrators to staff the new Education Authorities. The Education Law of 1962 established a partnership between the Government and the proprietors in order to develop a public system of primary education in which the Government is the leading partner and the Minister of Education has the over-all responsibility for the promotion of primary education. But the Minister may permit the formation of Education Authorities to whom he delegates this responsibility for a given area. Voluntary Agencies may transfer their schools to the Education Authority established in their area. The Education Authority must establish an education committee to consider all matters related to primary education and this committee must include all primary school proprietors who had transferred their schools to the Education Authority.

The formation of these Education Authorities was an entirely new development in Northern Nigeria, and its logical corollary was the setting up of a course to train educational administrators. Such administrative officers were needed in the Ministry of Education, in the Provincial Education Offices to relieve the Inspectorate of administrative duties, and above all in the Native Authorities, where they were expected to prepare Native Authorities to become Education Authorities and to become themselves the Education Officers of those authorities. (All Education Officers have their salaries paid entirely out of a Government grant, and an Education Authority cannot appoint, dismiss or reduce the salary of its Education Officer without the permission of the Minister.)

The training of such officers was by no means an easy task, as suitable candidates were very difficult to find. It was useless to look for university graduates with teaching experience, because almost all of them go into politics and higher administration. Finally, the candidates selected were headmasters of senior primary schools, Native Authority councillors for education, school managers and supervisors, and visiting teachers, the minimum qualification being a grade II Teachers' Certificate and successful teaching experience. All canditates were given an entrance examination to test their powers of reasoning, their practical knowledge of education in Northern Nigeria, and their command of English. They were then interviewed by the two officers responsible for the course. From eighty applicants, twenty-eight were eventually selected, all from different Native Authorities. The class thus formed spoke twenty-four different indigeneous languages, but the course was conducted in English. It lasted approximately twelve months.

A syllabus for the course was suggested in the Oldman Report, but it was modified and extended so as to give the students knowledge not only of the techniques of administration, but also of the essential functions of local Government as laid down in the Nigerian Constitution. Special stress was laid on English usage, written and spoken, in all lectures, discussions and tutorials, and remedial teaching and exercises in English were devised on the basis of the students' mistakes in their work. The plan and syllabus of the course are shown in Appendix A.

The first class, 1962/63, had the advantage of helping to formulate the schemes, delegation of duties to committees, standing orders, etc. and also in suggesting amendements to the 1962 Education Law. (In 1963, the House of Assembly amended the law, which became the 1964 Education Law.) The participants' experience and knowledge of Northern Nigeria's primary school system were invaluable, and the students came to think of the regulations of the Education Law and of administrative schemes as something closely connected with themselves and something which they were determined to operate successfully.

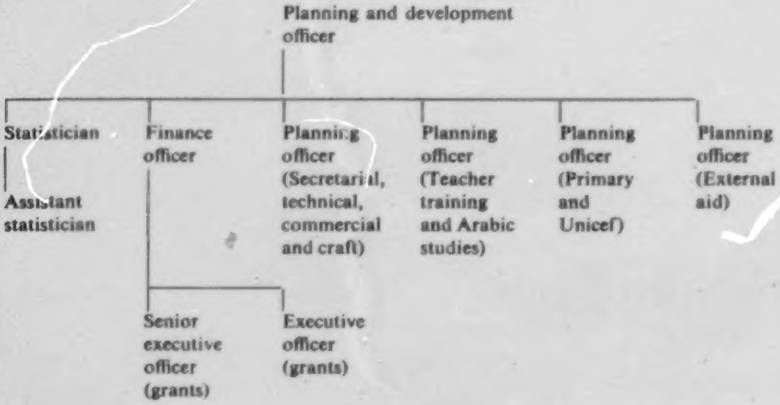
A useful task which the students performed was the collection of school statistics from their Native Authorities on special staff and organization cards as shown in Appendix B. From these cards the development plans for each Native Authority were prepared and later submitted to the Ministry of Education for the preparation of the over-all primary education plan. Four copies of the staff and organization card were completed for each school, one to be retained in the school, one to be kept by the Native Authority, one for the Provincial Education Secretary, and one for the Ministry of Education.

This then was the framework within which the development plan for primary education was to be implemented at Government and local levels. But let us first consider how it was elaborated.

# 2 Elaborating the plan for primary education

## Elaboration at Government level

The need for planning at Government level obviously made it necessary to create a planning division within the Ministry of Education. This was organized as shown schematically:


Planning and development officer
Statistician
Assistant statistician
Finance officer
Planning officer (Secretarial, technical, commercial and craft)
Planning officer (Teacher training and Arabic studies)
Planning officer (Primary and Unicef)
Planning officer (External aid)
Senior executive officer (grants)
Executive officer (grants)

It is expected that, as the development of Education Authorities progresses, the Planning and Development Division will grow under its four planning officers.

The Division began its work by calculating the rate of expansion of primary education from 1952 to 1962. It found that the rate was on an average 11.8 per cent per year, as against an assumed annual increase in the number of children of school age of 2 per cent. In absolute figures, primary school enrolments rose from 122,000 in 1952 to just under 360,000 in 1962. But even this rate of increase is insufficient to achieve the Ashby targets, which now imply some 829,000 children (revised figure) in schools by 1970.

Projections of school enrolments to achieve the Ashby targets had been made for the Provinces, but the wide variations in actual enrolments between the various Native Authorities in any one Province made it necessary to have projections for each Native Authority, showing enrolment targets and the teacher requirements necessary to meet the targets. In Ilorin Province, for instance, Ilorin Native Authority had an enrolment of 47 per cent, whilst Borgu Native Authority had only an enrolment of 5.8 per cent.

The collection of statistics from schools was in itself a problem, owing to the remoteness of some schools coupled with bad communications and to the lack of experience of headmasters in compiling even simple statistics. Often a whole Native Authority area had no one with knowledge of what the Ashby targets meant and what information was required from a district to enable the Ministry of Education to get a correct picture of primary education in the area as a whole. Forms were then devised which, when completed, gave the necessary basic information, in particular, details of enrolments and teachers. (See Appendix C.)

A second form was then devised to summarize the statistics for each Native Authority area, each Province, and the Region as a whole, showing for each year from 1962 to 1970 the projected numbers of children, classes and teachers necessary to achieve the Ashby targets. From these projections it was possible to calculate the number of new classes, from I to VII, and the number of grade II and grade III teachers required to staff these new classes for each year. (See Appendix D.)

Next came the costing of this programme on both capital and recurrent account, and this again was done for each Native Authority area, each Province, and the Region as a whole. For capital expenditure, the actual cost of building and furnishing one class-room was put at £700, of which half would be covered by the Government grant and half by the proprietor.

In order to assess recurrent costs, the Ministry of Education carried out investigations to determine the minimum cost of efficient primary education per child and per year. The cost of staffing a seven-class primary school was determined on the basis of two grade II teachers, three grade III teachers and two less well qualified teachers on the staff. Taking into account the salaries and the allowance of the headmaster, the annual teachers' salary bill for a school of 245 children was estimated at £1,650. The cost of books, stationery, equipment and materials was determined by listing all the essential items and dividing them into three categories: those that require renewal every year, those that must be renewed every two years, and those which last for five years. It was found to be £33.15.0 per year per class for classes I to IV, and £45.0.0 per year per class for classes V to VII. For a seven-class school, therefore, the total cost of equipment, etc. is £270 (4 × £33.15.0 + 3 × £45).

The cost of maintaining the buildings was put at £7.3.0 per class per year, and the cost of administration and inspection was put at the same amount. Thus the total recurrent costs for a seven-class school with 245 pupils on a yearly basis is £2,020.2.0; i.e., £1,650.0.0 for teachers' salaries; £270.0.0. for books, equipment, etc.; £50.1.0 for maintenance; and £50.1.0 for administration and inspection. The total of £2,020.2.0 divided by 245 gives £8.5.0 as the average cost per pupil per year.

As mentioned previously, the Government grant covers 61 per cent of these recurrent costs, i.e., £5.0.0, the remaining £3.5.0 being covered by the proprietor. The total of recurrent costs could therefore be apportioned between the Government and the proprietors for each Native Authority area, Province and the Region as a whole.

In financial matters, however, the Native Authorities are under the Ministry of Local Government. The latter took the figures of the Ministry of Education for capital expenditure, but calculated the recurrent expenditure on the basis of actual costs incurred by the Native Authorities in previous years, and not on the basis of the estimate of £8.5.0. Now the recurrent cost per pupil varies widely from one Native Authority area to another, because of the differences in the standards of equipment, the qualifications of the teachers, and the average number of pupils per class. But the average cost per pupil came to £12. This the Ministry of Local Government considered to be too high a figure and, consequently, required the Native Authorities to bring it down to £10 as a first step towards bringing it down to the level of £8.5.0 as estimated by the Ministry of Education.

The Ministry of Education produced for each Native Authority tables showing the number of streams and classes that had to be added annually to achieve an enrolment of 28 per cent of the 6 to 7 age group in class I by 1970. The enrolment in class VII as related to the 12-year group was also given in each case. (All this was naturally related to the subsequent levels and kinds of education in accordance with the Ashby targets.) It was thus possible to calculate the capital and recurrent costs for each Native Authority and the necessary increase in the tax levied by Native Authorities on education.

The Government gave all this information required to achieve the Ashby targets to the school proprietors, but the realization of the programme naturally depended on the extent to which the proprietors themselves could and would supply their share of the finance required. This share, in fact, comes from the local population in the form of local taxes, school fees, community collections and mission funds. It was also necessary to plan primary schools in a given area so as to achieve maximum efficiency and not have proprietors competing with each other in building small uneconomic schools in one area, while leaving another area without any primary school. These problems could obviously be solved only at the local level.

## Elaboration at the local level

The plans of the Native Authorities were determined by the available resources. The Ministry of Local Government, which is responsible for the finances of the Native Authorities, decided to fix a ceiling for all capital expenditure by the Native Authorities. In 1962, a Native Authority could spend a maximum of 30 per cent of the previous year's savings on capital expenditure on education, two-thirds of it on primary education and one-third on secondary education. In areas which have no secondary schools, the whole of the 30 per cent savings could be spent on primary schools.

This ceiling figure, when divided by the cost of one class-room to the Native Authority, i.e., the full cost less the Government share, gives the maximum number of class-rooms which the Native Authority can build in that year. Subsequently, the Ministry of Local Government changed the calculation so as to include in it the Government grant of £350 per class-room and to take into account the financial reserves of the Native Authority, the ceiling being given as a total for the six years of the development plan. Thus, in order to find the number of class-rooms a Native Authority can build in one year at the present time, the ceiling figure is first divided by six and then by the full cost of a class-room. This figure can then be compared with that necessary to achieve the Ashby targets. Such a comparison has been established in Table 3 for seven Native Authorities.

Some areas, Borgu and Muri, for instance, have no secondary schools and could thus spend the whole 30 per cent on primary education, thereby increasing the number of class-rooms they could build. Others could increase them by reducing building costs through community building.

As far as Voluntary Agencies were concerned, their capital and recurrent costs could not always be ascertained with the necessary accuracy, and it was therefore assumed that these costs would be similar to those estimated by the Ministry of Local Government for the same area. If the Native Authority became an Education Authority and the Voluntary Agency schools were transferred to it, then clearly both the capital and recurrent costs of the Native Authority would be correspondingly increased; that is, if the Ashby targets were to be met. It is because of this

TABLE 3. Number of class-rooms to be built per year according to Ashby targets and Ministry of Local Government ceilings

| Native Authority | Ashby targets | Ministry ceilings | Native Authority | Ashby targets | Ministry ceilings |
|---|---|---|---|---|---|
| Adamawa | 15-16 | 12 | Katsina | 132 | 78 |
| Borgu | 4 | 2 | Muri | 14 | 10-11 |
| Daura | 6 | 10 | Numan | 7 | 5-6 |
| Ilorin | 34 | 14 | | | |

contingency that the building of new class-rooms in Voluntary Agency schools was reduced.

In any event, the total number of class-rooms which a Native Authority was allowed to build in any year from 1962 to 1968 could be estimated and the maximum allowable growth of primary school places could thus be projected. A plan could then be prepared for the expansion of each school necessary to ensure for all children now in school a seven-year primary education either in a three-class-room school, a four-class-room school, a seven-class-room school, or a school with a multiple of seven class-rooms to take several streams. To this end, a table was prepared for each school, showing the number of classes and of class-rooms for each year from 1962 to 1968. As the years pass, additional classes are added to extend the school to a full seven-year course. The staff and organization card shows if there is a spare class-room at any school and how many class-rooms have to be built in any one year to cope with the expected increase the following year.

Clearly, if the ceiling figures do not meet the requirements, the building programme has to be delayed, with the result that some children now in school will not be able to complete the full seven-year course. On the other hand, if the ceiling exceeds the requirements, new schools can be built in areas where there is a demand for primary education.

On the basis of the number of class-rooms, it was possible to determine the capital expenditure year by year for Native Authority and Voluntary Agency schools separately, taking into account the Government grant of £350 per class-room.

Similarly, on the basis of the estimated number of children in school each year, total recurrent costs were calculated separately for Native Authority and Voluntary Agency schools, using *per capita* costs in each case and allowing for the Government grant of £5 per head. The staff and organization cards gave the status of every teacher at every school, and it was therefore easy to calculate the number of teachers of each grade required to bring each school up to the staffing requirements of the Ministry, taking into account extensions to existing schools and new schools to be built. In this way, the yearly staffing requirements were established for the Native Authority area, considering separately Native Authority and Voluntary Agency schools. In areas where the Native Authority wished to become an Educational Authority and receive schools from the Voluntary Agency, the recurrent (and capital) costs were calculated accordingly.

It was now possible to draw up the final development plan for each Native Authority area, specifying the new schools to be built and the schools scheduled for extension, the capital costs and the recurrent expenditure. These development plans still had to receive the approval of the Native Authority Council or the Education Authority or the Voluntary Agency concerned. They were then forwarded to the Ministry of Education for comment and final approval.

## Integration of local plans into the Government plan

It now remained to co-ordinate and fuse the Native Authority plans into one coherent whole—the Government development plan. The Ministry of Education, in checking the local plans, had to ensure that (a) all capital costs were within the ceiling figures of the Ministry of Local Government; (b) the Ashby targets were achieved to the fullest extent compatible with these ceiling figures; (c) the siting of class-rooms was in accordance with the Government policy of establishing seven-year primary schools; (d) the planned increase in classes did not entail the employment of untrained and unqualified teachers.

Some Native Authority plans exceeded the Ashby targets, others fell short of them owing to the lack of resources; but on the whole the plans, when adjusted, were in conformity with Government policy within the bounds of financial possibilities. As for the Voluntary Agencies, the response varied from one Agency to another, but the development of their schools was grant-aided only if it conformed with the principles laid down in the Government development plan.

Let us take, as example, the plan of the Lafia Native Authority. Under the Ministry of Local Government ceiling, the Authority could build seven and a half class-rooms per year (i.e., eight one year and seven the next year) at a cost of £700 per class-room. The table below shows the number of class-rooms to be built under the Lafia plan by the Native Authority (N.A.) and the Voluntary Agency (V.A.) respectively, and the number required under the Government plan.

TABLE 4. Number of class-rooms to be build in Lafia Native Authority area.

| | 1963 | | | 1964 | | | 1965 | | | 1963-65 total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | N.A. | V.A. | Total | N.A. | V.A. | Total | N.A. | V.A. | Total | N.A. | V.A. | Total |
| Ministry plan | 8 | 11 | 19 | 9 | 10 | 19 | 3 | 8 | 11 | 20 | 29 | 49 |
| Lafia N.A. plan | 8 | 9 | 17 | 7 | 9 | 16 | 8 | 9 | 17 | 23 | 27 | 50 |

As can be seen, by 1965 Lafia Authority will have built twenty-three class-rooms as against the Government target of twenty class-rooms. The Voluntary Agency's target as set by the Government is twenty-nine class-rooms, but the plan of the Native Authority counts only on twenty-seven Voluntary Agency class-rooms. Altogether, however, Lafia will have built one class-room in excess of the Ashby targets. The Lafia plan was therefore approved because the costs (originally set at £800 per class-room, but later brought down to £700) are within the ceiling limit of the Ministry of Local Government, the programme achieves the Ashby targets, the policy of upgrading schools to a seven-year course is being followed, and the new schools are sited in areas which lend themselves to such an upgrading.

## Teacher training

The needs for teachers are derived directly from the projections of enrolments by applying the Government staffing ratios. These needs were calculated for each Native Authority, Province and for the Region as a whole; and it was decided to consider teacher-training needs on a Provincial basis.

The projections showed that the number of qualified teachers (mostly grades II and III) needed by 1970 in order to meet the Ashby targets was some 18,000. As the number of qualified teachers was only 5,215 in 1961, and as the teacher wastage amounts to 6 per cent per year, it was calculated that almost 19,000 qualified teachers would have to be produced during the period 1962-70 if the Ashby targets were to be met. The number of additional teachers required each year was as follows:

| 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | Total | Average per year |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 433 | 2 065 | 2 228 | 1 705 | 1 862 | 1 954 | 2 056 | 2 222 | 2 421 | 18 946 | 2 100 |

The next step was to assess the necessary teacher-training facilities, taking into account those that were already available and allowing for a 5 per cent failure rate at teacher-training colleges. The fact that during the first three or five years of the expansion programme no extra teachers will be produced had also to be taken into consideration.

In 1963, there were fifty-four teacher-training colleges with an average of 110 students and a staff of eight each. Many of them were sited in areas of low population density and remained small because of their association with the missions. The Government decided, therefore, to expand existing Government colleges and build new ones, to expand Voluntary Agency colleges by giving them liberal capital and recurrent grants for the purpose, to close small uneconomic colleges, and to establish in all colleges a five-year course after primary VII for grade II Certificate, with selection at the end of the second year.

The effect of such a course would naturally be to increase even further the number of places required in teacher-training colleges. In 1961, only about 20 per cent of the students were enrolled for the five-year grade II course, the remaining 80 per cent following the three-year grade III course. The average duration of studies was, therefore, 3.4 years ($5 \times 0.2 + 3 \times 0.8$).

If the proportion of grade II students was to be increased to 80 per cent, the average duration of studies would be 4.6 years ($5 \times 0.8 + 3 \times 0.2$).

Now in 1961 there were 4,668 places in teacher-training colleges. With an average duration of studies of 3.4 years, this means that there were 1,373 places (4,668

TABLE 5. Number of students in teacher-training colleges

| Year | 1961 | | | 1962 | | | 1963 | | | 1964 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 1 | 966 | 255 | 1 221 | 1 888 | 529 | 2 417 | 1 989 | 477 | 2 466 | 1 911 | 515 | 2 426 |
| 2 | 1 030 | 217 | 1 247 | 1 052 | 260 | 1 312 | 1 947 | 495 | 2 442 | 1 982 | 498 | 2 190 |
| 3 | 994 | 175 | 1 169 | 1 044 | 212 | 1 256 | 1 131 | 252 | 1 383 | 1 802 | 388 | 2 140 |
| 4 | 373 | 97 | 470 | 580 | 98 | 678 | 496 | 112 | 608 | 733 | 146 | 879 |
| 5 | 323 | 76 | 399 | 372 | 90 | 462 | 539 | 86 | 625 | 435 | 107 | 542 |
| | 3 686 | 820 | 4 506 | 4 936 | 1 189 | 6 125 | 6 102 | 1 422 | 7 524 | 6 863 | 1 654 | 8 517 |

divided by 3.4) for intake every year. But with a duration of studies extended to 4.6 years, the number of new places required to maintain this yearly intake of 1,373 would be 1,648 (1,373 × 1.2). However, as was pointed out earlier, the output of trained teachers should amount to some 2,400 in 1970 which, taking into account the 5 per cent failure rate, means that the intake in 1965 should amount to 2,520 (i.e., eighty-four streams of entry) instead of 1,373. This means an additional yearly intake of 1,147 who will be in training for an average of 4.6 years, creating the need for 5,276 extra places (1,147 × 4.6). The total extra places required to cope with both expansion and lengthening of the average duration of the courses is, therefore 6,924 (1,648 + 5,276), i.e., an increase of almost 50 per cent over the 4,668 places available in 1961.

The Government decided to build five new training colleges and to open two others in premises already built, to expand eighteen of the nineteen Government colleges and to close the remaining one. All the Voluntary Agency colleges were to be either expanded or closed down. As a result, the increase in the number of places of 150 per cent was to be ensured as to over 100 per cent by the Government and less than 50 per cent by the Voluntary Agencies.

The first effects of this policy can be seen in Table 5.

At the end of 1966, when the increased numbers who entered training colleges in 1962 will be fully trained teachers, there should be some 2,300 additional teachers available, and the same number will become available in 1967 and 1968. Clearly, the building programme for teacher training is beginning to show results. However, the full programme is not yet being implemented. Expansion and new colleges were scheduled to produce, according to the Government plan, the following numbers of teachers:

| | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 |
|---|---|---|---|---|---|---|---|---|---|
| Number of teachers | 1 461 | 1 684 | 1 101 | 1 309 | 2 169 | 3 079 | 2 760 | 3 210 | 3 363 |

The number of teachers expected in 1969 being 3,363, the number of students entering training colleges in 1964 should have been at least 3,363 instead of 2,426. But the estimate of 2,400 teachers from 1966 onwards is being maintained.

## The Wisconsin team's critical review

The development plan for primary education as formulated by the Government was submitted to a team provided by the University of Wisconsin for a critical review. In October 1962, the University of Wisconsin entered into a contract with the Agency for International Development (AID) to provide a team of educational consultants to the Government of Northern Nigeria with a view to reviewing, advising and making recommendations on the governmental programme for the expansion of primary education and of teacher-training facilities. After a review of the enrolment projections, the team suggested (a) that the wastage of 10.7 per cent allowed over the seven-year course in accordance with Archer's assumptions was not realistic, and that it should be put at 30 per cent; (b) that it would not be possible to restrict school enrolments in Native Authorities where more than 28 per cent of children were enrolled until Native Authorities with an enrolment of less than 28 per cent made rapid progress.

When these two factors were taken into account and the 1961 enrolment figures projected accordingly, it was found that the number of children in school each year from 1962 to 1970 would be smaller than that given in the Government estimates. This in turn meant that fewer teachers would be required than forecast by the Government plan. The latter, however, allowed in its calculations for the continued employment of unqualified teachers. This the Wisconsin team did not accept, making its calculations on the basis that all teachers employed in primary schools in 1970 should be qualified. Its final estimate of the number of qualified teachers required was therefore greater than the Government estimate. To achieve this objective, the Wisconsin team proposed to expand the Government teacher-training programme and enlarge all Government colleges up to four streams of entry.

# 3 External assistance

Northern Nigeria has received external aid for education from many sources, but no aid had been received for primary education until the United Nations Children's Fund supplied invaluable help in the form of essential school materials.

Since Government grants on recurrent accounts are given on the basis of teachers' salaries, many Native Authorities and Voluntary Agencies found the cost of textbooks and school materials very high in comparison with their income. The equipment of a new class with essential materials, most of which have to be imported, costs approximately £60. The average rate of Native Authority tax is £2 per adult worker per year, of which the Government's share is 5 shillings. Voluntary Agencies' resources are perhaps even more limited. Thus Native Authorities are often unable to provide the right amount and kind of materials required for efficient teaching, while Voluntary Agencies require pupils to provide their own textbooks and exercise books. As the parental income is probably no more than £40-50 per annum, out of which school fees have to be paid, the extra cost of books is almost prohibitive.

Unicef is now giving assistance on a very generous scale, and its object is not only to provide the materials, but also to show what basic materials are required in each class and how they can be supplied in class units. In this way, materials can be purchased in bulk by proprietors from a contractor who will parcel orders in labelled school lots and deliver them to the Native Authority store for forwarding to the schools. The work of keeping a store stocked with all the necessary items and issuing these items to schools as required is too difficult a task for the majority of Native Authority storekeepers.

The practical implementation of the scheme was as follows. Lists of essential materials were prepared for each class from I to VII, each class list being divided into three sections: (a) items which would last for five years, (b) items which would last for two years, and (c) items which would last for one year only. Unicef packed all materials in complete class lots correctly labelled for each class and Native Authority, and sent them in bulk to Kaduna; from there they were forwarded to the various Native Authority stores, which in turn delivered the lots packed in class units to the Native Authority and Voluntary Agency schools.

# 4 Implementation of the plan: achievements and failures

The progress achieved in implementing the plan can best be judged by considering the latest figures of enrolments and classes as shown in Tables 6 and 7.

As can be seen from these tables, the average number of children per class in 1964 was 35.3 (452,319 divided by 12,817), which is in accordance with the Government plan. Also, the number of newly formed classes I has fallen, while the total number of classes V, VI and VII has risen sharply year by year. This indicates that priority is being given to extending existing schools to a full seven-year course over the building of new schools, also in accordance with Government policy.

TABLE 6. Enrolments and classes in primary schools

| Year | | All classes | Class I | Class V | Class VI | Class VII |
|---|---|---|---|---|---|---|
| 1961 | Enrolments | 316 264 | 81 292 | 25 730 | 19 964 | 16 304 |
| | Classes | 9 414 | 2 233 | 729 | 592 | 512 |
| 1962 | Enrolments | 359 934 | 87 781 | 33 754 | 25 507 | 19 847 |
| | Classes | 10 330 | 2 370 | 923 | 705 | 576 |
| 1963 | Enrolments | 410 706 | 91 567 | 42 010 | 33 502 | 24 845 |
| | Classes | 11 620 | 2 458 | 1 183 | 941 | 725 |
| 1964 | Enrolments | 452 319 | 92 526 | 51 114 | 40 292 | 32 698 |
| | Classes | 12 817 | 2 519 | 1 452 | 1 167 | 922 |

TABLE 7. Yearly increase in enrolments and classes

| Year | | All classes | Class I | Class V | Class VI | Class VII |
|---|---|---|---|---|---|---|
| 1961/62 | Enrolments | 43 670 | 6 489 | 8 024 | 5 543 | 3 543 |
| | Classes | 916 | 137 | 194 | 113 | 64 |
| 1962/63 | Enrolments | 50 772 | 3 786 | 8 256 | 7 995 | 4 998 |
| | Classes | 1 290 | 88 | 260 | 236 | 149 |
| 1963/64 | Enrolments | 41 613 | 949 | 9 104 | 6 790 | 7 853 |
| | Classes | 1 197 | 61 | 269 | 226 | 197 |

However, enrolments in 1964 are 79,777 behind the Ashby target of 532,096, and the number of classes is 2,702 behind the Ashby figure of 15,519 for 1964. There was, however, a very substantial increase in enrolments and the number of classes between 1961 and 1964, as shown in Table 6.

As far as teacher supply is concerned, the situation is shown in Table 8. It should be remembered that the staffing plan allows two grade II, three grade III and two uncertificated teachers for each seven-class school.

TABLE 8. Numbers of teachers and classes

| Year | Classes VI and VII | Grade II teachers[1] | Classes III, IV and V | Grade III teachers | Classes I and II | Uncertificated teachers |
|---|---|---|---|---|---|---|
| 1961 | 1 104 | 1 529 | 4 082 | 3 832 | 4 228 | 4 407 |
| 1962 | 1 281 | 1 713 | 4 519 | 4 310 | 4 530 | 4 536 |
| 1963 | 1 666 | 2 165 | 5 179 | 5 187 | 4 775 | 4 732 |
| 1964 | 2 089 | 2 560 | 5 769 | 5 686 | 4 959 | 4 973 |

1. Including grade I teachers

As can be seen, the number of grade II teachers is still in excess of the number required to teach classes VI and VII, and the number of grade III teachers is almost equal to the number of classes III, IV and V. With the surplus of grade II teachers, there are enough qualified teachers for all classes from III to VII, though naturally they are not equally distributed over the Region. The number of uncertificated teachers in 1964 was almost equal to the number of classes I and II, and has shown an increase, as was only to be expected. However, there has been a decrease in the relative number of these teachers between 1961 and 1964, since the number of classes I and II has increased by 731, while that of uncertificated teachers has risen by 566 only.

These figures, encouraging as they are, still do not come up to the Ashby targets, which, for 1964, were 15,519 class-rooms and 10,663 qualified teachers, as against 12,817 class-rooms and 8,246 qualified teachers available in 1964. However, with the expected output of well over 2,000 grade II teachers from 1966 onwards, the number of new primary class-rooms can be increased without unduly affecting the quality of the staff—provided that Native Authorities can find the necessary resources. The greatest deficiency is in classes V, VI and VII, indicating that there is still much to be done in upgrading schools to a full seven-year course.

A survey is also being made of the wastage of pupils, and preliminary results are indicated in Table 9.

Here again there is an improvement, especially in the loss from class IV to class V, indicating that more classes V have been created, according to the plan.

The reform of the administration of primary education has been progressing since the enactment of the 1962 Education Law. In 1963, three Native Authorities,

TABLE 9. Wastage of pupils in primary schools (in percentage)

| Year | Class I to Class II | Class II to Class III | Class III to Class IV | Class IV to Class V | Class V to Class VI | Class VI to Class VII |
|---|---|---|---|---|---|---|
| 1959/60 | 9.4 | 8.4 | 0.9 | 48.2 | 1.1 | 2.6 |
| 1960/61 | 8.2 | 7.4 | 1.7 | 44.6 | 5.4 | 6.2 |
| 1961/62 | 6.8 | 7.8 | 2.8 | 30.8 | 0.9 | 0.6 |
| 1962/63 | 5.4 | 3.0 | 0.9 | 22.8 | 0.8 | 2.6 |
| 1963/64 | 5.7 | 5.2 | 3.9 | 17.9 | 4.1 | 2.3 |
| Annual average percentage reduction | 7.1 | 6.4 | 2.0 | 32.9 | 2.0 | 2.9 |

Bornu, Katsina and Abuja, were selected to become Education Authorities on 1 April 1964. All three areas had Native Authority and Voluntary Agency schools, and all had men trained as Education Officers on the first Zaria course. In addition, a Provincial Education Secretary, also trained in Zaria, was available for help and advice. In October, 1963, officers of the Ministry of Education visited the three Native Authorities and explained the whole scheme in detail, advising on the constitution of the kind of Education Authority that would be acceptable to the Minister. As the result of discussions with Voluntary Agency proprietors, a majority of the latter agreed to hand over their schools to the Education Authority.

The Education Authority system, when introduced in the whole of the Region, will ease the administrative burden of the Ministry of Education and facilitate the planning of primary education. Three planning officers, trained on the first Zaria course and now in the Ministry of Education, are responsible for the formation of Education Authorities and for dealing with them administratively. They form the core of the Primary Education Section which is now being built within the Ministry of Education.

# Conclusions

The financial limitations restricting the expansion of primary education in Northern Nigeria are not confined to the Government sphere; half of the capital costs and 39 per cent of the recurrent costs have to be covered from local resources, in the case of the recurrent costs, slightly less than one-third from Native Authority rates and taxes, and over two-thirds from school fees and Voluntary Agency funds. Thus even if the Government could increase its grants-in-aid to primary schools, the ability of the local population to contribute its share would set a limit to the expansion. Recurrent costs tend to rise with the expansion of primary education, and the justified insistence on more and better qualified teachers is another factor in raising costs. Native Authority tax, of which 12.5 per cent goes to the Government, amounts to £2 per working adult per year, and this sum may represent as much as 5 per cent of the earnings of an agricultural worker. In addition, parents who send their children to Voluntary Agency schools have to pay school fees of at least £2 per pupil per year, but sometimes as much as £5 or £6. This is a heavy burden which cannot but severely restrict access to primary education.

The economic growth of Nigeria is estimated at 4 per cent per annum, but the latest census figures show that the population is increasing at almost the same rate, i.e., 3.5 per cent per annum. There is thus little left for raising the standards of the population. As in most developing countries, universal primary education is a long way from being achieved in Northern Nigeria, where only 15 per cent of children of school age actually are in school. Without external aid—and an increase in the rate of economic growth— it may not be possible even to maintain present educational standards, let alone achieve the goal of universal primary education.

# Appendixes

A Plan and syllabus of the course in educational administration in Northern Nigeria
B Staff and organization card
C Individual report of primary schools
D Statistical record

APPENDIX

# Plan and syllabus of the course in educational administration in Northern Nigeria

The course is divided into two parts. The introductory part will last four months approximately, at the end of which there will be an examination and unsuccessful students will be returned to their Native Authorities. The main part of the course will last eight months approximately. Between the two parts there will be a break of four weeks to coincide with Ramadan.

## SCHEME OF WORK AND TIMETABLE

October 1963 (1st week): Introduction, allocation of books, timetables, syllabuses and discussions of general arrangements (pay, lodging and the like).

November-December 1963 (2nd-9th week): Course of lectures and discussions according to the syllabus specified for the introductory part of the course.

January 1964 (10th week): Revision.

January 1964 (11th week): Examinations and announcement of results and break.

February-August 1964 (16th-43rd week): Course of lectures, visits and practical work according to the syllabus for the main part of the course.

September 1964 (44th-45th week): Revision.

September 1964 (46th-48th week): Examinations, marking, announcement of results and dispersal.

## SYLLABUS

A. *How Nigeria is governed*

1. Federal Government:
    - (a) Federal legislature (Parliament and Senate);
    - (b) Executive Council.
2. Regional Government (with particular reference to Northern Nigeria):
    - (a) Regional legislature (Houses of Assembly and Chiefs);
    - (b) Executive Council;
    - (c) Judiciary.
3. Local Government (with particular reference to Northern Nigeria):
    - (a) Provincial Administration;

(b) Native Authorities: the internal organization of Native Authorities; joint services between Native Authorities; the services provided by Native Authorities; local Government finance; local Government elections; control of Native Lands.

### B. *Northern Nigeria Education Law 1956*

1. The existing pattern of education in Northern Nigeria:
    (a) Primary;
    (b) Secondary;
    (c) Teacher training.
2. The difficulties and inefficiencies of the present patterns of education.
3. Suggestions and discussions on how the organization can be improved as an introduction to the formation of Education Authorities and an outline of their duties.

### C. *Education Authorities*

The place of an Education Authority in the present pattern of Government:

1. Regional;
2. Local.

### D. *Oldman Report*

The changes suggested in:

1. Education Law 1956;
2. The pattern of administration to help achieve the Ashby targets in Northern Nigeria.

### E. *New Education Law 1962*

How its affects:

1. The Minister of Education;
2. The Ministry of Education;
3. Native Authorities and Voluntary Agencies;
3. Administration of education and education monies.

### F. *Regulations for the Education Law 1962*

1. Reasons for regulations;
2. Preparation of regulations and study of those available;
3. The Education Law, the regulations and Administration.

### G. *Formation of Education Authorities primary (education)*

1. Education Law 1962—permission to set up Education Authorities by submission of a scheme for approval.
2. Outline schemes for use by Native Authorities when submitting their own scheme.
3. The Education Committee of the Education Authority and the functions delegated by the Education Authority to the Education Committee. Specimen resolution to be passed by Education Authority.
4. Standing orders—specimens prepared.
5. Preparation of schemes by each student for his own individual Native Authority.

6. Education Committee:
    (a) Practical use of standing orders;
    (b) Agenda and minutes;
    (c) Students to write agenda, hold actual meetings, and write minutes;
    (d) Formation of sub-committees—delegation of powers;
    (e) Schools' sub-committee;
    (f) Finance sub-committee;
    (g) Planning sub-committee;
    (h) Staffing sub-committee;
    (i) School visitors—their duties;
    (j) Management of secondary schools: preparation of outline; instrument and articles of government for all secondary schools; application of these in particular cases;
    (k) Emergency powers granted to Education Officers and Chairmen of Education Committees.
7. Duties of Schools' Committee.
    (a) Supplies—books, stationery and replacement of furniture;
    (b) Organization of schools;
    (c) Transport of pupils and teachers;
    (d) Reports from school visitors, and governors, Voluntary Agencies and Government inspectors;
    (e) School meals.
8. Finance sub-committee: to supervise income and expenditure.
    (a) *Income*. (i) Grants from Government: capital; recurrent. (ii) School fees. (iii) Contribution from Native Authority, Voluntary Agency or Education Authority—precepts;
    (b) *Expenditure*. (i) Capital expenditure—school buildings and initial furniture. (ii) Recurrent expenditures: teachers' salaries; supplies; administration; maintenance of schools; transport; loan charges; school meals;
    (c) *Adjustment payments*. What they are and how applied;
    (d) *Auditing and accounting system*. A simple system to be developed by the class;
    (e) *Estimates*.
9. Planning sub-committee:
    (a) The planning and siting of new schools—practical work in drawing site plans and simple school-building plans;
    (b) The planning of extensions to existing schools;
    (c) The maintenance of schools;
    (d) Contracts and tenders—procedures and precautions;
    (e) Co-operation with other Native Authority departments—Works Department.
10. Education Office:
    (a) The need for an office;
    (b) The organization of the office and how the office serves: the committee and sub-committee; schools (and children); teachers;
    (c) Education Officer;
    (d) Collaboration with other departments.

11. The Administration and the Inspectorate:
    - (a) Reports on schools and necessary action;
    - (b) Consultation on: new school buildings; furniture; books and equipment; development plans.

H. *Material to be prepared and developed by each student*

1. Scheme for his own Education Authority.
2. Agenda and minutes for:
    - (a) Education Committee;
    - (b) A sub-committee.
3. Statistics from the students' own Native Authorities on prepared Staff and Organization Cards devised on the course.
4. Development plan for their own particular Native Authority based on collected statistics (3 above).
5. Mock estimates to be prepared for each Education Authority.
6. Building regulations to be drawn up for each area which allow the use of local materials, but which conform to over-all standards.

# Staff and organization card 1964

Province
District
Proprietor
Native authority area
Name of school
School no.
Town/Village
Aided/ Non-aided
Boarding/ Non-boarding

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | 10 | | | 11 | | |
| | Teacher | | | | | Room | | Enrolment 31 March | | | Average attendance month of March | | | School leavers this year | | |
| Class | Name | Registered number | Qualification | Date of Qualif. | Salary | Description | Area in square feet | Boys | Girls | Total | Boys | Girls | Total | Boys | Girls | Total |
| P.E.S. To initial and certify salaries correct: | | | | | | | TOTALS | | | | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **A** Number of class-rooms not in use | **B** Probable number of new entrants next year | | | **C** Number on roll | **D** Additional classes planned for 1965 for which further class-rooms are required | |
| | Boys | Girls | Total | 1963 | Class | Reason for forming new class |
| | | | | 1962 | | |
| | | | | 1961 | | |

CERTIFIED CORRECT

**E** FOR OFFICE USE ONLY

| | |
|---|---|
| Total approved salaries | £ |
| Total approved other expenses | £ |
| Headmaster's allowance | £ |
| Boarding grants and allowances | £ |
| Total approved expenses | £ |
| Less A.L.C. | £ |
| Adjustments from previous years | £ |
| Net grant payable | £ |
| Interim grant paid | £ |
| Adjustment grant payable | £ |

Computed by :
Checked by :
Examined by :

# Instructions

***Do not fold this card***

| | |
|---|---|
| **GENERAL** | 1. This card must be completed for all primary schools, Government, N.A. and V.A., whether aided or non-aided.<br>2. On this card the enrolment means the number of pupils on the register of a class on 31 March 1964.<br>3. This card should be completed in ink and must not be folded. |
| **CARD HEADINGS** | The Province, Native Authority, the district, and town or village in which the school is situated should be clearly stated. In addition the name of the school, the school number, the name of the proprietor and whether or not the school is aided or non-aided, boarding or non-boarding should be clearly given. |
| **COLUMN 1** | Classes should be numbered and entered in order, Class I having the youngest children being at the top. If there is more than one Class I, then the classes should be designated Class IA, IB etc., and entered on the card in that order. |
| **COLUMN 2** | Enter here the name of the teacher as 'registered'. |
| **COLUMN 3** | Enter here the registered number of the teacher. If the teacher is *not* registered write 'nil'. |
| **COLUMN 4** | The Professional qualification of each teacher should be entered here as follows:<br>G. I for senior teacher's certificate<br>G. II for higher elementary certificate<br>G. III for elementary certificate<br>G. IV for vernacular teacher's certificate<br>C/S for specially selected untrained teacher<br>P.P. for probationary<br>FG. II for failed higher elementary certificate<br>FG. III for failed elementary certificate<br>FG. IV for failed vernacular teacher's certificate<br>U.S. for untrained teacher who has completed secondary school<br>U.T. for untrained teacher who has *not* completed secondary school<br>U.P. for untrained teacher who has completed primary school<br>(The head teacher should put 'H' in front of his professional qualification i.e., HG. II). |
| **COLUMN 5** | Enter here the month and year during which the teacher sat the examination for his last professional qualification. |
| **COLUMN 6** | Enter here the present salary of the teacher in £s. per year. |
| **COLUMN 7** | Each class-room must be entered in this column whether it is occupied or not. If a class-room is unoccupied, write 'unoccupied' across columns 7, 8 and 9. |
| **COLUMN 8** | Enter here the floor area of each class-room in square feet. |
| **COLUMN 9** | The number of (a) boys, (b) girls, and (c) the total number of children in the class on 31 March 1964 should be carefully entered in this column. |
| **COLUMN 10** | Enter here the average attendance in each class for the month of March 1964. These averages should be for (a) boys, (b) girls and (c) total attendances, separately. |
| **COLUMN 11** | The number of (a) boys, (b) girls and (c) the total number of children in each class who will be leaving school at the end of this school year should be entered in this column against the appropriate class. In most cases school leavers will be from classes IV and VII. |
| **BOX A** | State here the number of class-rooms which are *not* occupied by a class this year (1964). |
| **BOX B** | Estimate as accurately as you can the number of children you expect to admit in January 1965, in the next school year. |
| **BOX C** | Enter here the total number of children on the registers (school roll) during the years 1961, 1962, and 1963. |
| **BOX D** | If you expect to establish any additional classes in 1965, enter the particulars here. |
| **BOX E** | This space is for office use only for the estimation of your grant-in-aid and you must leave it free. |
| **FINALLY** | If you have more members of staff than classes enter their names and particulars in columns 2, 3, 4, 5, and 6 and write across columns 7, 8 and 9 what special services these teachers perform, e.g., Arabist, etc.<br>If this card does not contain sufficient space to record the necessary details for all classes and teachers, you should use a second card to complete your record, and then pin the two cards together. |

APPENDIX C

# Individual report of primary schools

To be filled in by each headmaster
To be printed in ink or typewritten

1 Name of headmaster
2 Name of school
3 Province in which school is located
4 Native administration in which school is located
5 Division in which school is located
6 District in which school is located
7 Town or village in which school is located
8 Control of school (N.A.; R.C.M.; S.I.M.; S.U.M.; Anglican; Methodist; etc.)
9 Support of school (aided or non-aided)
10 Rate of grant per pupil
11 Number of Nigerian Teachers Male Female
12 Number of non-Nigerian teachers Male Female

| **13 Qualifications of teachers by class** | Class I | | Class II | | Class III | | Class IV | | Class V | | Class VI | | Class VII | | Total all classes | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| 1 Approved graduate or equivalent | | | | | | | | | | | | | | | | |
| (a) With teaching qualifications | | | | | | | | | | | | | | | | |
| (b) Without teaching qualifications | | | | | | | | | | | | | | | | |
| 2 Non-graduate | | | | | | | | | | | | | | | | |
| (a) U.L.I.E. professional certif. or equiv | | | | | | | | | | | | | | | | |
| (b) Ministry of education certif. or equiv | | | | | | | | | | | | | | | | |
| 3 Grade I | | | | | | | | | | | | | | | | |
| 4 Grade II | | | | | | | | | | | | | | | | |
| 5 Grade III | | | | | | | | | | | | | | | | |
| 6 Grade IV | | | | | | | | | | | | | | | | |
| 7 Teachers who failed Grade II exam. | | | | | | | | | | | | | | | | |
| 8 Teachers who failed Grade III exam. | | | | | | | | | | | | | | | | |
| 9 Manual instructors or equivalent | | | | | | | | | | | | | | | | |
| 10 Handwork instructors or equivalent | | | | | | | | | | | | | | | | |
| 11 Untrained teachers, who | | | | | | | | | | | | | | | | |
| (a) have completed secondary school | | | | | | | | | | | | | | | | |
| (b) have completed primary school | | | | | | | | | | | | | | | | |
| (c) are specially selected uncertificated | | | | | | | | | | | | | | | | |
| 12 Probationary | | | | | | | | | | | | | | | | |
| 13 Other (please give details) | | | | | | | | | | | | | | | | |
| (a) | | | | | | | | | | | | | | | | |
| (b) | | | | | | | | | | | | | | | | |

**14 Roll of teachers** (Attach an additional sheet, if necessary)

| Teacher's name | Registered number | Sex | Nigerian* | Non-Nigerian* | Tribe (if Nigerian) |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*Tick (✓) one for each teacher

**15 Number of classes in school**

| | Class I | Class II | Class III | Class IV | Class V | Class VI | Class VII | Total all classes |
|---|---|---|---|---|---|---|---|---|
| Number of classes | | | | | | | | |

**16 Indicate number of additional classes planned for next school term**

| | Class I | Class II | Class III | Class IV | Class V | Class VI | Class VII | Total all classes |
|---|---|---|---|---|---|---|---|---|
| Number of additional classes planned | | | | | | | | |

**17 Enrolment of pupils, by age, by class, and by sex:**

| Age of pupils | Class I | | Class II | | Class III | | Class IV | | Class V | | Class VI | | Class VII | | Total all classes | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| 5 but under 6 years of age | | | | | | | | | | | | | | | | |
| 6 but under 7 years of age | | | | | | | | | | | | | | | | |
| 7 but under 8 years of age | | | | | | | | | | | | | | | | |
| 8 but under 9 years of age | | | | | | | | | | | | | | | | |
| 9 but under 10 years of age | | | | | | | | | | | | | | | | |
| 10 but under 11 years of age | | | | | | | | | | | | | | | | |
| 11 but under 12 years of age | | | | | | | | | | | | | | | | |
| 12 years of age and over | | | | | | | | | | | | | | | | |
| TOTALS | | | | | | | | | | | | | | | | |

Date:

Headmaster's signature:

**APPENDIX D**

# Statistical record

| | | 1961 | | | 1962 | | | 1963 | | | 1964 | | | 1965 | | | 1966 | | | 1967 | | | 1968 | | | 1969 | | | 1970 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6-7 year-old age group | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28% of 6-7 year-old age group | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | NA | VA | Total | NA | VA | Total | NA | VA | Total | NA | VA | Total | NA | VA | Total | NA | VA | Total | NA | VA | Total | NA | VA | Total | NA | VA | Total | NA | VA | Total |
| Enrolment | Class I | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Class II | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Class III | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Class IV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Class V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Class VI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Class VII | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Percentage of 6-7 year-old age group in Class I | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Percentage of Class IV leavers entering Class V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Staffing needed | Grade II | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Grade III | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Staffing available | Grade II | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Grade III | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Class build-up | Class I | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Class II | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Class III | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Class IV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Class V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Class VI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Class VII | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

# The organization of educational planning in Nigeria

A.C.R. Wheeler

# Foreword

Educational planning is sometimes talked about as if it were a separate package which can be tacked on to an existing educational system and magically make it work better. The fact is, of course, that educational planning, if it is to amount to anything, must be an integral part of the whole process of educational administration, tied intimately to all decision-making and implementation.

This has always been the case. Those responsible for administering education, whether for an individual school or university or for a whole system, have always had to anticipate at least one year ahead the number of students to be accommodated, the number of teachers, seats and books required, the cost of all this, and where the money would come from.

The essential difference now is that everything has speeded up enormously. Far-reaching changes in the environment of virtually every educational system, including an explosive growth in the popular demand for education, have required these systems to grow and change at an unprecedented rate.

Under conditions of rapid growth and change, an educational system can encounter serious imbalances, both internally and in relation to society and the economy. To avoid such imbalances and the consequent waste of resources, educational managers now require a much more extensive and complicated kind of educational planning than used to suffice. This new type of planning must be more comprehensive, in order to embrace and co-ordinate all main components of the system; it must be effectively linked with the requirements for economic growth and social development, and with the resource supplies of the economy; it must look much farther ahead, to allow for the long 'production cycle' of education; and it must be as much concerned with educational change and quality as with mere quantitative expansion.

To cope with these new necessities calls not only for a new kind of educational planning but, even more, for a new kind of educational management. An old and obsolete administrative system cannot successfully accommodate modern educational planning. Still, old systems of educational administration, of the supervisory and caretaker sort, cannot quickly be transformed into the more positive system of management which is required for rapid and well-planned educational development, integrated with over-all national development.

This problem of administrative transition lies at the heart of the difficulties which newly developing countries have encountered in trying to establish modern educational planning. To learn more about these difficulties, and how they can best be overcome, the IIEP sent one of its staff members, Anthony Wheeler, to study the early experiences of the various regions and the federal capital of Nigeria. He conducted his field work, in close co-operation with Nigerian educational officials, during several weeks in 1965. Subsequently, he examined many other relevant materials and studies, both on Nigeria and on problems of development administration. The findings reported here pre-date the more recent political changes within Nigeria.

The Institute's hope is that this examination of the Nigerian experience, with regard to the administrative aspects of educational planning, will be helpful to other developing countries as well. Their specific circumstances—like those of the regions of Nigeria itself—will of course differ greatly. Yet most are likely to find in common with Nigeria a series of fundamental problems of educational planning and administration which are inescapable when a country moves into independence and into a fresh era of development.

At the successive stages of this study the author received generous help from many Nigerian authorities and educational experts. In particular, the author and the Institute acknowledge their special gratitude to the following: Chief Stephen Awokoya, former adviser to Nigeria's federal Ministry of Education; Mallam Shehu Bakari, chief inspector of primary education, Kaduna, Northern Region, Nigeria; Mr. C. Ebert, chief inspector of secondary education, Benin, Mid-West Region, Nigeria; Dr. A. Musone, former Unesco adviser on statistics to Nigeria's federal Ministry of Education; Professor Andrew Taylor, former director of the Institute of Education at the University of Ibadan; and Mr. J. Thornley, a senior inspector with special responsibilities for primary education in Nigeria.

In addition, Chief Awokoya, Dr. A. Callaway, a research associate of the Massachusetts Institute of Technology's Centre for International Studies, and Mr. R. Lyons, a senior staff member of the IIEP, spared valuable time to read and criticize various drafts, and many of their suggestions have been incorporated into the study.

PHILIP H. COOMBS
Director, IIEP

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# Introduction

This study examines the organization of educational planning in Nigeria immediately before the events early in 1966 which produced substantial political changes. Thus it focuses in particular on the first three years of the 1962-68 National Development Plan. Earlier efforts at educational planning in Nigeria receive relatively little attention. The reasons for this restriction on the scope of the study require some explanation here, although they are referred to at appropriate points later in the study. In a rapidly developing and changing country such as Nigeria it is difficult to investigate closely the recent historical period, since with the frequent changes of personnel, those most involved in a particular undertaking are no longer easily accessible. In addition, written documents of events whose political repercussions are not yet exhausted are often unavailable. Thus we do not treat extensively the establishment of universal primary education in Western and Eastern Nigeria. Nor for that matter do we provide a thorough account of the preparation of the 1962-68 National Development Plan, from the viewpoint of an exercise in organization, decision-making, and administrative procedures.[1] Thus the primary focus of this study is on the implementation of the educational programmes of the first National Development Plan, up to and including 1965.

It needs to be stressed at the outset that this study is concerned primarily not with the progress of education in Nigeria, but with the progress in developing machineries and procedures for *planning* Nigeria's educational development. Of course an examination of the progress of education is one aspect of the evaluation of progress in planning, from the point of view of the results achieved, but it must be emphasized that we undertake this only as an aid to arriving at conclusions about the progress in *planning* educational development.

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[1] See W.F. Stolper, *Planning without Facts*, Cambridge, Mass., Harvard University Press, 1966, and O. Aboyade, *Foundations of an African Economy*, New York, Praeger, 1966, which throw more light on these issues.

The educational systems of the southern regions of Nigeria were in *1965* considerably more advanced than that of Northern Nigeria, but for our purposes this is less of interest than their relative progress in *planning* such development of education as has taken place. Possibly this places the North at an advantage in any recent comparison of progress among the regions, because the southern regions went through their period of rapid educational expansion earlier, during the decade immediately before, and had subsequently settled down to a slower pace of quantitative development, dictated partly by the need to consolidate earlier expansionary efforts, and partly by the growing burden of recurrent expenditure, which created a budgetary limitation on further expansion. Thus the most recent history of education in the southern regions might be characterized as the spreading of qualitative improvements, e.g., upgrading of teachers' qualifications. By contrast, the greatest expansion of the Northern Region educational system has taken place (from small beginnings) only during the recent period with which, as is pointed out above, this study is most concerned.

Hence while it is easy to see a close connexion between the expansion of education in the North and the effort made to *plan* this expansion, it is less easy to discover comparable evidence of planned educational development in the other regions during the same period. The truest comparison of the effectiveness of planning as an agent of educational development in Nigeria might be, say, between the North of the early 1960s and the East and West of the mid- and late 1950s, but, as explained above, it was not felt possible to do this. (This of course refers primarily to a comparison of the quantitative expansion of educational systems, since the application of techniques of planning to their qualitative improvement remains by comparison a less-developed subject.) We therefore feel the need to indicate the possibility of a certain built-in emphasis in the conclusions of this study, which tends to concentrate more on experience in the North, simply because recent progress there is much easier to observe, and also because the 'current state of the art' in educational planning lends itself more easily to analysis of this type of situation.

The criteria which have been used to evaluate the development of educational planning in Nigeria are as follows:

1. The regular collection of relevant data for planning.
2. The training and permanency of planning personnel.
3. The phasing and costing of educational proposals within the context of all other government activities so that the government agencies concerned, such as the planning unit and the ministry of finance, can see them as such and provide for their implementation.
4. The development of procedures and personnel for the implementation of plans and review of their progress.

Obviously it could not be expected that a country at Nigeria's level of development could fulfil all these criteria entirely satisfactorily—perhaps no country in the world could—but the interest of the inquiry is in discovering the extent of progress, the obstacles faced, and the solutions found to overcome them.

# 1 The progress of education in Nigeria

The progress of education in Nigeria during the years 1957-65 is briefly summarized in the four tables below; these cover primary and secondary schools, but not higher education, which was the responsibility of premiers in the regions, and of the Prime Minister in Lagos. Tables 2 and 4 are especially instructive, because they show the extent to which the schools were managed by different types of authority in the four regions, a matter of great relevance to the implementation of educational planning. The regions are discussed in turn.

The *North* is the region with the largest population, though its density is low, as is the enrolment ratio in primary education over large areas. According to a 1965 estimate,[1] this ratio for the 6 to 12 age group was below 10 per cent in five large provinces. Even so, the situation had greatly improved after 1957, since the number of pupils had more than doubled, enrolments of girls having risen faster than those of boys, and the teaching force had also doubled. The number of primary schools, however, rose by only 35 per cent, reflecting a large increase in the average size of schools and a slight increase in the average size of classes. This suggests that better opportunities existed for improving the quality of education, since inspection was made easier, and teachers when grouped together are in a better position to learn from their more experienced colleagues. It may be added that the qualifications of the teaching force also improved during this period, though this is not shown in the tables.

Another problem not revealed by the tables, yet common to all the regions, was the high rate of drop-out in primary education. Thus, in 1965, there were in the North almost 100,000 children in class 1, but less than 40,000 in class 7. Certainly part of this difference could be accounted for by the fact that an expansion

*(continued on page 258)*

[1] Ministry of Education of Northern Nigeria, *Classes, Enrolments and Teachers in the Primary Schools of Northern Nigeria, 1965*, Kaduna, Planning and Development Division, 1965, p. 20, fig. 4.

**Table 1.** Primary education: number of schools, and number of teachers and pupils by sex

| Region | Year | Number of schools | Teachers |  |  | Pupils |  |  | Average of pupils |  |
|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  | Male | Female | Total | Boys | Girls | Total | per school | per teacher |
| North | 1957 | 2 009 | 6 635 | 1 227 | 7 862 | 154 496 | 51 273 | 205 769 | 102 | 26 |
|  | 1960 | 2 600 | 8 528 | 1 526 | 10 054 | 206 443 | 76 405 | 282 848 | 109 | 29 |
|  | 1963 | 2 625 | 11 059 | 2 010 | 13 069 | 295 644 | 115 062 | 410 706 | 156 | 31 |
|  | 1965 | 2 743 | 13 063 | 2 249 | 15 312 | 349 390 | 143 120 | 492 510 | 180 | 32 |
| East | 1957 | 6 986 | 33 266 | 7 585 | 40 851 | 792 096 | 417 071 | 1 209 167 | 173 | 30 |
|  | 1960 | 6 451 | 35 382 | 9 096 | 44 478 | 896 334 | 534 180 | 1 430 514 | 222 | 32 |
|  | 1963 | 6 028 | 32 378 | 6 576 | 38 954 | 777 056 | 501 650 | 1 278 706 | 212 | 33 |
|  | 1965 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| West[1] | 1957 A | 6 628 | 28 108 | 6 743 | 34 851 | 619 577 | 363 178 | 982 755 | 148 | 28 |
|  | B | 4 610 | ... | ... | 23 741 | 414 223 | 244 497 | 658 720 | 143 | 28 |
|  | 1960 A | 6 540 | 32 237 | 7 878 | 40 115 | 687 215 | 437 573 | 1 124 788 | 172 | 28 |
|  | B | 4 544 | ... | ... | 26 875 | 459 086 | 283 790 | 742 876 | 163 | 28 |
|  | 1963 A | 6 311 | 30 471 | 8 385 | 38 856 | 643 826 | 455 592 | 1 099 418 | 174 | 28 |
|  | B | 4 417 | ... | ... | 26 500 | 433 075 | 296 472 | 729 547 | 165 | 28 |
|  | 1965 A | ... | ... | ... | ... | ... | ... | ... | ... | ... |
|  | B | 4 364 | ... | ... | 23 480 | 438 184 | 298 964 | 737 148 | 169 | 31 |
| Lagos | 1957 | 96 | 710 | 936 | 1 646 | 27 432 | 22 750 | 50 182 | 523 | 30 |
|  | 1960 | 112 | 1 020 | 1 140 | 2 160 | 39 479 | 34 989 | 74 468 | 665 | 34 |
|  | 1963 | 126 | 1 715 | 1 582 | 3 297 | 55 118 | 52 434 | 107 552 | 854 | 33 |
|  | 1965 | ... | ... | ... | ... | ... | ... | ... | ... | ... |

[1] The A data for the Western Region refer to the territory as it was before the formation of the Mid-West Region in 1963. The B data refer to the Western Region excluding the area which formed the Mid-West Region. Thus although separate data for the Mid-West have not yet become available, examination of these two sets of figures permits an interpretation of the educational history of the area which subsequently became the Mid-West Region

SOURCES

1. The 1957 data are taken from *Annual Digest of Education 1961* (Federal Ministry of Education), except for 'West 1957 B'
2. The 1960 and 1963 data are taken from *Statistics of Education in Nigeria 1963* (Federal Ministry of Education), except for 'West 1960 B' and 'West 1963 B'

...Data not available

3. The 1965 data for the Northern Region are taken from *Classes, Enrolments and Teachers in the Primary Schools of Northern Nigeria, 1965* (Ministry of Education, Northern Nigeria)
4. The B data are taken from *Some Trends in Education in the Western Region of Nigeria 1955-65* (International Labour Office Mission, Ibadan, October 1965)

TABLE 2. Primary education: number of schools and pupils by controlling authority

| Authority | Year | Northern Region | | Eastern Region | | Western Region[1] | | Lagos | |
|---|---|---|---|---|---|---|---|---|---|
| | | Schools | Pupils | Schools | Pupils | Schools | Pupils | Schools | Pupils |
| Government schools | 1957 | 3 | 351 | 11 | 3 046 | 8 | 2 122 | 1 | 577 |
| | 1960 | 7 | 849 | 11 | 3 042 | 7 | 1 753 | 1 | 726 |
| | 1963 | ... | ... | 12 | 2 888 | 8 | 1 969 | 1 | 1 263 |
| Local authority schools | 1957 | 850 | 71 178 | 1 511 | 86 298 | 1 844 | 182 357 | ... | ... |
| | 1960 | 864 | 89 551 | 1 597 | 202 321 | 1 807 | 236 759 | 3 | 1 347 |
| | 1963 | 1 314 | 174 925 | 1 515 | 224 987 | 1 724 | 235 854 | 5 | 5 590 |
| Aided schools | 1957 | 787 | 114 768 | 5 381 | 1 115 378 | 4 776 | 798 276 | 73 | 44 227 |
| | 1960 | 1 256 | 148 257 | 4 728 | 1 218 078 | 4 726 | 886 276 | 95 | 68 545 |
| | 1963 | 1 051 | 213 476 | 4 464 | 1 046 994 | 4 579 | 861 595 | 104 | 96 785 |
| Non-aided schools | 1957 | 369 | 19 472 | 83 | 4 445 | ... | ... | 22 | 5 378 |
| | 1960 | 473 | 44 191 | 115 | 7 073 | ... | ... | 13 | 3 850 |
| | 1963 | 260 | 22 305 | 57 | 3 837 | ... | ... | 16 | 3 914 |

1. Data for the Western Region include the area which formed the Mid-West Region in 1963

...Data not available

SOURCES

1. The 1957 data are taken from *Annual Digest of Education Statistics 1961* (Federal Ministry of Education)
2. The 1960 and 1963 data are taken from *Statistics of Education in Nigeria 1963* (Federal Ministry of Education)

TABLE 3. Secondary education: number of schools, and number of teachers and pupils by sex

| Year | Number of schools | Teachers | | | Pupils | | | Average of pupils | |
|---|---|---|---|---|---|---|---|---|---|
| | | Male | Female | Total | Boys | Girls | Total | per school | per teacher |
| **NORTHERN REGION** | | | | | | | | | |
| *General education* | | | | | | | | | |
| 1957 | 27 | 272 | 46 | 318 | 3 306 | 345 | 3 651 | 135 | 11.5 |
| 1960 | 41 | 297 | 108 | 405 | 5 795 | 539 | 6 334 | 153 | 16 |
| 1963 | 56 | 470 | 140 | 610 | 8 469 | 1 412 | 9 881 | 176 | 16 |
| 1965 | 72 | 609 | 216 | 825 | 11 750 | 2 419 | 14 169 | 197 | 17 |
| *Technical and vocational education* | | | | | | | | | |
| 1957 | 8 | 77 | 1 | 78 | 872 | — | 872 | 109 | 11 |
| 1960 | 14 | 178 | 2 | 180 | 2 012 | — | 2 012 | 144 | 11 |
| 1963 | 16 | 219 | 7 | 226 | 2 658 | — | 2 658 | 166 | 12 |
| 1965 | 16 | 224 | 12 | 236 | 2 884 | — | 2 884 | 180 | 12 |
| *Teacher training* | | | | | | | | | |
| 1957 | 46 | 164 | 71 | 235 | 2 183 | 363 | 2 546 | 55 | 10.8 |
| 1960 | 51 | 260 | 91 | 351 | 3 469 | 643 | 4 112 | 81 | 12 |
| 1963 | 54 | 351 | 141 | 492 | 6 290 | 1 483 | 7 773 | 144 | 16 |
| 1965 | 55 | 475 | 195 | 670 | 8 801 | 2 207 | 11 008 | 200 | 16 |
| **EASTERN REGION** | | | | | | | | | |
| *General education* | | | | | | | | | |
| 1957 | 83 | 915 | 106 | 1 021 | 13 200 | 1 632 | 14 832 | 179 | 14.5 |
| 1960 | 113 | 1 147 | 128 | 1 275 | 19 509 | 2 628 | 22 137 | 196 | 17 |
| 1963 | 231 | 1 944 | 445 | 2 389 | 31 862 | 8 076 | 39 938 | 173 | 17 |
| *Technical and vocational education* | | | | | | | | | |
| 1957 | 5 | 39 | — | 39 | 492 | 18 | 510 | 102 | 13.1 |
| 1960 | 9 | 55 | 1 | 56 | 863 | 13 | 876 | 97 | 16 |
| 1963 | 7 | 68 | 3 | 71 | 1 643 | 45 | 1 688 | 241 | 24 |
| *Teacher training* | | | | | | | | | |
| 1957 | 152 | 565 | 173 | 738 | 7 252 | 2 161 | 9 413 | 62 | 12.8 |
| 1960 | 159 | 505 | 160 | 665 | 9 122 | 2 891 | 12 013 | 76 | 18 |
| 1963 | 115 | 530 | 183 | 713 | 7 742 | 2 943 | 10 685 | 93 | 15 |
| **WESTERN REGION**[1] | | | | | | | | | |
| *General education* | | | | | | | | | |
| 1957 | 362 | 1 574 | 382 | 1 956 | 37 565[2] | 9 245[2] | 46 810[2] | 129[2] | 23.9[2] |
| 1960 | 700 | 3 944 | 829 | 4 473 | 78 384 | 22 865 | 101 249 | 145 | 21 |
| 1963 | 911 | 5 914 | 1 357 | 7 271 | 104 411 | 46 277 | 150 688 | 165 | 21 |
| *Technical and vocational education* | | | | | | | | | |
| 1957 | 2 | 30 | 3 | 33 | 200 | 20 | 220 | 110 | 6.7 |
| 1960 | 4 | 36 | — | 36 | 137 | 57 | 194 | 49 | 5 |
| 1963 | 6 | 54 | 1 | 55 | 695 | 80 | 775 | 129 | 14 |
| *Teacher training* | | | | | | | | | |
| 1957 | 99 | 547 | 191 | 738 | 7 963 | 2 508 | 10 471 | 106 | 14.2 |
| 1960 | 101 | 585 | 194 | 779 | 8 482 | 2 825 | 11 307 | 112 | 15 |
| 1963 | 92 | 613 | 162 | 775 | 9 922 | 3 063 | 12 985 | 141 | 17 |

[See notes overleaf]

Table 3 (continued)

| Year | Number of schools | Teachers |  |  | Pupils |  |  | Average of pupils |  |
|---|---|---|---|---|---|---|---|---|---|
|  |  | Male | Female | Total | Boys | Girls | Total | per school | per teacher |
| Lagos |  |  |  |  |  |  |  |  |  |
| *General education* |  |  |  |  |  |  |  |  |  |
| 1957 | 17 | 205 | 87 | 292 | 2 949 | 1 138 | 4 087 | 240 | 14.0 |
| 1960 | 29 | 161 | 121 | 282 | 3 208 | 2 506 | 5 714 | 197 | 20 |
| 1963 | 47 | 435 | 200 | 635 | 7 065 | 4 307 | 11 372 | 242 | 18 |
| *Technical and vocational education* |  |  |  |  |  |  |  |  |  |
| 1957 | 2 | 52 | — | 52 | 1 418 | — | 1 418 | 709 | 27.3 |
| 1960 | 2 | 78 | 1 | 79 | 1 927 | 28 | 1 955 | 978 | 25 |
| 1963 | 2 | 85 | 5 | 90 | 2 161 | 73 | 2 234 | 1 117 | 25 |
| *Teacher training* |  |  |  |  |  |  |  |  |  |
| 1957 | 1 | 6 | 2 | 8 | 94 | 35 | 129 | 129 | 16.1 |
| 1960 | 4 | 30 | 4 | 34 | 391 | 85 | 476 | 119 | 14 |
| 1963 | 5 | 54 | 18 | 72 | 632 | 264 | 896 | 179 | 12 |

NOTES

1. Data for the Western Region include the area which formed the Mid-West Region in 1963
2. For strict comparability with the other data, these figures should be slightly increased, as they do not include post-certificate pupils

SOURCES

The same as for Table 2, except for the 1965 figures for the Northern Region which are from *Classes, Enrolments and Teachers in the Schools of Northern Nigeria, 1965* (Ministry of Education, Kaduna)

Table 4. Secondary education: number of schools and pupils by controlling authority

| Year | Northern Region |  | Eastern Region |  | Western Region[1] |  | Lagos |  |
|---|---|---|---|---|---|---|---|---|
|  | Number of schools | Number of pupils | Number of schools | Number of pupils | Number of schools | Number of pupils | Number of schools | Number of pupils |
| GENERAL EDUCATION |  |  |  |  |  |  |  |  |
| *Government schools* |  |  |  |  |  |  |  |  |
| 1957 | 4 | 675 | 4 | 711 | 4 | 952[2] | 2 | 467 |
| 1960 | 4 | 787 | 4 | 843 | 4 | 995 | 2 | 568 |
| 1963 | 5 | 1 315 | 5 | 1 566 | 5 | 1 324 | 3 | 1 149 |
| *Local authority schools* |  |  |  |  |  |  |  |  |
| 1957 | 15 | 1 624 | 3 | 141 | 98 | 15 758[2] | — | — |
| 1960 | 15 | 2 581 | 7 | 779 | 153 | 24 643 | — | — |
| 1963 | 19 | 3 966 | 12 | 1 818 | 168 | 30 482 | — | — |
| *Aided schools* |  |  |  |  |  |  |  |  |
| 1957 | 8 | 1 352 | 47 | 10 329 | 260 | 30 100[2] | 12 | 2 239 |
| 1960 | 22 | 2 896 | 61 | 14 003 | 121 | 18 074 | 24 | 3 780 |
| 1963 | 27 | 4 306 | 99 | 23 970 | 113 | 25 048 | 29 | 5 370 |

TABLE 4 (continued)

| Year | Northern Region | | Eastern Region | | Western Region[1] | | Lagos | |
|---|---|---|---|---|---|---|---|---|
| | Number of schools | Number of pupils | Number of schools | Number of pupils | Number of schools | Number of pupils | Number of schools | Number of pupils |
| **GENERAL EDUCATION (cont.)** | | | | | | | | |
| *Non-aided schools* | | | | | | | | |
| 1957 | — | — | 29 | 3 651 | — | — | 3 | 1 381 |
| 1960 | — | — | 41 | 6 512 | 422 | 57 537 | 3 | 1 366 |
| 1963 | 5 | 294 | 115 | 12 584 | 620 | 93 834 | 15 | 4 853 |
| **TECHNICAL AND VOCATIONAL EDUCATION** | | | | | | | | |
| *Government schools* | | | | | | | | |
| 1957 | 5 | 709 | 3 | 343 | 2 | 220 | 2 | 1 418 |
| 1960 | 14 | 2 012 | 3 | 394 | 4 | 194 | 2 | 1 955 |
| 1963 | 16 | 2 658 | 2 | 1 054 | 6 | 775 | 2 | 2 234 |
| *Local authority schools* | | | — | — | — | — | — | — |
| *Aided schools* | | | | | | | | |
| 1957 | — | — | 2 | 167 | — | — | — | — |
| 1960 | — | — | 1 | 118 | — | — | — | — |
| 1963 | — | — | 1 | 140 | — | — | — | — |
| *Non-aided schools* | | | | | | | | |
| 1957 | 3 | 163 | — | — | — | — | — | — |
| 1960 | — | — | 5 | 364 | — | — | — | — |
| 1963 | — | — | 4 | 494 | — | — | — | — |
| **TEACHER TRAINING** | | | | | | | | |
| *Government schools* | | | | | | | | |
| 1957 | 20 | 1 272 | 5 | 629 | 6 | 534 | 1 | 129 |
| 1960 | 22 | 1 802 | 6 | 480 | 5 | 525 | 1 | 172 |
| 1963 | 25 | 4 011 | 5 | 689 | 5 | 654 | 2 | 455 |
| *Local authority schools* | | | | | | | | |
| 1957 | — | — | 10 | 770 | 29 | 3 492 | — | — |
| 1960 | — | — | 12 | 1 030 | 28 | 3 827 | — | — |
| 1963 | — | — | 11 | 1 012 | 28 | 4 186 | — | — |
| *Aided schools* | | | | | | | | |
| 1957 | 26 | 1 274 | 122 | 7 494 | 64 | 6 445 | — | — |
| 1960 | 29 | 2 310 | 127 | 10 002 | 68 | 6 955 | 3 | 304 |
| 1963 | 28 | 3 617 | 99 | 8 984 | 58 | 8 145 | 3 | 441 |
| *Non-aided schools* | | | | | | | | |
| 1957 | — | — | 15 | 520 | — | — | — | — |
| 1960 | — | — | 14 | 501 | — | — | — | — |
| 1963 | 1 | 145 | — | — | — | — | — | — |

NOTES

1. Data for the Western Region include the area which formed the Mid-West Region in 1963
2. Post-school certificate pupils in general education in the Western Region were excluded in 1957

SOURCES

As for Table 2

in enrolments affects the lower classes first, but there remains a significant proportion which indicates drop-out.

The pattern of management of primary education in the North differed from that in other regions in that the native authorities controlled the largest number of schools, with the voluntary agencies coming second, whereas in the other regions the reverse was the case. Furthermore, the number of native authority schools in the North increased, while that of voluntary agency schools remained stationary in the last two years after having decreased previously. This reflects the more restricted influence of voluntary agencies in the North and, conversely, the greater recent influence of government during the period of expansion following the Ashby Commission's report.

The development of secondary education in the North was much more rapid than that of primary education during the period 1957-55. There was a *fourfold* increase in the number of pupils and a *threefold* increase in teachers. General secondary schools tripled in number and technical schools doubled, with both types of school substantially increasing their average size. In teacher training, the number of institutions increased by only 20 per cent, but the average size quadrupled to reach 200 pupils.

By 1965 the North had a much more diversified system of secondary education than the other regions; although the number of general secondary schools was relatively small, that of technical and vocational schools was larger in both relative and absolute terms. Teacher training was also expanding at a much faster rate than in the other regions, though from a much lower level. On the other hand, the figures do not show the fact that the other regions were more successful than the North in raising the output from the higher levels of teacher training.

Thus, the main features which distinguished the North from the other regions during the 1957-65 period were the rapid growth in all sectors of education from a late start, the relatively greater emphasis on technical and vocational education at the secondary level, and the more apparent influence in educational matters of the government and the native authorities as compared with the voluntary agencies.

The *East* and the *West* can be considered together because of their very similar educational systems. Both had very large primary enrolments by African standards, owing to the introduction of universal free primary education in the mid-1950s (subsequently partly replaced by fee-paying in the East). But after the introduction of free primary education in the East in 1957, the number of primary schools steadily decreased, particularly among aided voluntary agency schools, and this suggests that the government, by virtue of its grants-in-aid, was able to encourage mergers among schools. Also, the number of teachers showed a tendency to decrease in more recent years, though their average qualifications were improving, which suggests a steady qualitative improvement in primary education in the East following the expansion generated by the introduction of universal free primary education. Less easy to explain is the fall in total enrolments after 1960, though this is no doubt partly accounted for by the reimposition of fees from class 3 in 1958 and the reduction in the length of schooling from eight years to seven years in 1960 and to six years in 1962.

In the West, universal free primary education was introduced in 1965 and has been maintained since. In this case, also, enrolments and the numbers of teachers and schools showed a tendency to decrease after 1960. A recent publication[1] ascribes this as well as the increasing drop-outs to the lack of employment opportunities for school leavers, poor standards of teaching, and the lack of finance among parents. More children remained as part of the labour force on family farms. However, in the areas closest to Lagos, which offered the most varied employment opportunities, enrolments continued to increase.

Secondary modern schools were established to enable primary school leavers to continue their education with a view to enhancing their employment possibilities. The results were disappointing, mainly because the schools were inadequately equipped and staffed to do their job. Enrolments have greatly decreased in more recent years, and an effort is being made to replace several of these secondary modern schools by 'comprehensive' high schools.

Both the East and the West had very few facilities for technical and vocational education, but devoted considerable efforts to the training of teachers for the large system of primary education. Also they were rapidly expanding their secondary grammar systems.

Thus quantitatively the main characteristics of the educational systems of the East and West were a large primary level topped by a relatively small secondary level, a significant part of which was geared to producing teachers for the primary level. However, this picture conceals the important qualitative changes which were taking place. The training of teachers shifted from grade III to grade II, which was expected to influence favourably the quality of primary school instruction. In the secondary grammar schools in the East greater provision was being made in the curriculum for scientific subjects. There were also plans for a rapid expansion of technical education.

The *Mid-West* was created as recently as 1963, and by 1965 had not published any statistics. Even so, the few data available by inference from Table 1 show that the characteristics of the educational system were similar to those in the West.

The federal territory of *Lagos*, like the North, experienced a continuous and rapid expansion of all types of education, though this expansion was least pronounced in the field of technical and vocational education. However, this advance was due not to any previous lag, but rather to the unusually rapid growth of the population of school age due to natural increase and substantial immigration from other parts of the country. A notable feature of primary education was the large pupil enrolment per school—some schools had double streams, and a few operated a shift system.

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[1] D. Calcott, *Some Trends in Education in the Western Region of Nigeria, 1955-65*, Ibadan, ILO mission, October 1965, pp. 6 and 22.

As can be seen from this brief review, the development of education in Nigeria varied considerably from one region to another. This is due to the extensive autonomy which each of the regions enjoyed in educational matters. It would be wrong, however, to asume that the federal government had no power or influence over Nigerian education. The following chapter describes the nature of federal responsibilities and the instruments used, in particular with reference to the planning of educational development.

# 2 The role and powers of the federal government

Under the federal constitution of Nigeria in operation in 1965 there was a division of executive responsibilities between the federal and regional governments. The latter were responsible for education within their territories, while the former was responsible for education within the federal territory and for a number of other educational institutions, mostly at the higher level, deemed to be of national importance. This meant, in effect, that higher education was the joint responsibility of the federal and regional governments, while primary and secondary education remained the sole responsibility of each regional government. But notwithstanding this delimitation of powers, the federal Ministry of Education became in some measure a national Ministry of Education, particularly with regard to international educational affairs and endeavours to co-ordinate the educational policies of the regional governments with a view to maintaining national standards.

## Planning at the federal level

As an independent federation, Nigeria dates only from 1960. Before 1960, under the colonial régime, there were national institutions and, at least on paper, national development plans. But accounts of these plans agree in treating them as something less than planning exercises. Referring to the 'Ten Year Plan of Development and Welfare for Nigeria, 1946', and the 'Revised Plan of Development and Welfare for Nigeria, 1951-56', Clark[1] says, 'These early plans were essentially a disjointed set of individual projects grouped together under departmental headings which reflected the administrative structure of the colonial government rather than any co-ordinated sectoral division of the economy. It was therefore impossible to test whether the parts of the plan were complementary or whether the resource supply would balance anticipated future demands.' Similarly a federal government publication, the text of the National Development Plan 1962-68[1] adds: 'These were not "plans" in the true sense of the word. More accurately, they constituted a series of projects which had not been co-ordinated or related to any over-all economic target. Many of the individual schemes proposed no more than an expansion of existing normal departmental activities and, in large measure, the schemes aimed at building up the social as much as the economic services.'

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[1] P.B. Clark, 'Economic Planning for a Country in Transition: Nigeria', ch. 9 of *Planning Economic Development* (ed. Hagen), Homewood, Illinois, Richard D. Irwin, Inc., 1963. The quotation is from p. 255.

Thus federal activity in any type of planning is a recent phenomenon, and we must remember further that with independence many expatriate civil servants left and Nigerians who were not always prepared for such responsibilities had to control newly recruited and inexperienced subordinates. Thus neither the institutions nor the men to carry out federal planning activities existed to any extent before federation. The main task of the apparatus which has been built up was the formulation of the National Development Plan 1962-68, which took place at the very beginning of its existence. Moreover, in relation to federal planning of education, most of the institutions which were brought into existence and whose roles are discussed in this section were subsequent to the formulation of the plan. Accordingly our evaluation of them must be regarded as tentative in the extreme.

The apparatus for national development planning centred around three bodies: the National Economic Council, the Joint Planning Committee, and the Economic Planning Unit of the federal Ministry of Economic Development. The National Economic Council, which was the highest political (ministerial) level, issued over-all directives to its working arm, the Joint Planning Committee, consisting of senior officials, which developed these over-all directives before it passed them on to its technical arm, the Economic Planning Unit, which in turn translated them into draft proposals. These then had to go back up the scale for modification or final approval. Both the council and the committee were inter-regional in their representation. Naturally, at all stages in this process co-ordination was aimed at between the regional and federal plans, which together formed the National Development Plan.

In preparing the 1962-68 plan the Economic Planning Unit had two distinct tasks: the first, to bring together the proposals of the various federal ministries to form a federal government development programme, the second, the further incorporation of regional programmes to form the National Development Plan.[2] It should be noted, however, that it is very difficult to obtain a first-hand account of how the Economic Planning Unit proceeded in practice, for the turnover of personnel has been so rapid that the current occupants of positions no longer have a first-hand knowledge of what was done several years ago by their predecessors. We must rely to a large extent, therefore, on documentary sources which are themselves not in complete agreement.

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[1] Federation of Nigeria. *National Development Plan 1962-68*. Lagos, federal Ministry of Economic Development, undated, p. 6.

[2] For the precise meaning given to terms such as 'programme' and 'plan', see next chapter.

According to Rivkin[1] the unit began its work with a small staff of foreign experts brought in for the purpose, who had first to learn to work as a team, and also with a great variety of politicians and professional people at both regional and federal levels. The essential work of making estimates and projections for the plan had to be carried out with generally inadequate data. At the same time, the foreign experts had to train Nigerians who would later supersede them. The co-ordination of the various proposals was not made easier by the fact that not every ministry was at first willing to accept national planning. Lastly, the economists in the planning unit, in making alternative projections of the progress of the economy, used aggregate economic analysis to present their findings. While useful to the technicians, this presentation was not always fully intelligible to the administrators in the Joint Planning Committee, who had to propose policy choices, or to the politicians in the National Economic Council, who had to make the final decision. Consequently the administrators, instead of making basic recommendations for over-all strategy to guide the subsequent detailed planning, restricted themselves to examining individual federal and regional programmes and considering their financial feasibility. There was, thus, some failure in communication between the technicians and the senior administrators they had to serve,[2] due to their different concepts of planning.[3]

Thus the formulation of the Nigerian development plan should not be considered as a good example of organization for planning, and the role of the Economic Planning Unit cannot be taken as a good guide for the future. The unit has since concentrated on training planners in federal ministries and developing processes of data collection and analysis in readiness for the preparation of subsequent development plans.

As far as educational planning was concerned, the federal activities were of a diffuse nature and do not easily lend themselves to a precise description. The federal ministry did not carry out national planning of education in Nigeria, but neither was it concerned only with the planning of educational development in the federal territory of Lagos. It concerned itself (a) with representing Nigerian education abroad, which is not to suggest that regional ministries were thus

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1. Arnold Rivkin, 'Economic Development Planning in Nigeria', *Journal of Local Administration Overseas*, London, January 1964, pp. 27-34.
2. Clark, op. cit., pp. 260 ff. and pp. 273-4; also James O'Connell, 'Some Social and Political Reflections on the Plan', *Journal of Economic and Social Studies*, Ibadan, July 1962, p. 135.
3. However, Stolper, who worked as head of the group of economic planners, feels that the accommodations necessitated by these considerations were a strength of the planning process. See Stolper, op. cit., p. 39, footnote.

excluded from international contacts and (b) with endeavours to extend co-ordination of educational activities between the regions. A number of federal bodies had research, information-gathering, co-ordinating and administrative activities whose products were utilized by the regional governments for educational planning purposes. The contribution of the federal government in the field of educational planning can perhaps best be indicated by describing the activities of the main bodies concerned, e.g., the federal Ministry of Education, the National Manpower Board, the Federal Office of Statistics.

## The federal Ministry of Education

The ministry had both a national and a local role. In its local role it was responsible for all education within the federal territory of Lagos—not a minor task if one considers that the population probably numbered about one million and was rapidly increasing. With respect to primary education, the government's authority devolved largely on the Lagos City Council, which acted as the local education authority, functioning through its education committee. In other respects, various officials of the ministry were concerned with educational needs of Lagos, e.g., vocational guidance.

In considering the national role of the ministry, it is necessary to bear in mind

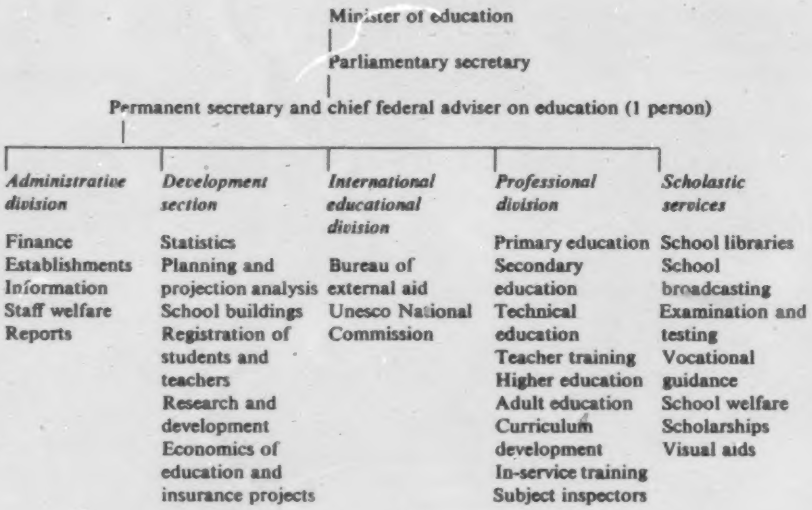
Minister of education
Parliamentary secretary
Permanent secretary and chief federal adviser on education (1 person)
*Administrative division*
Finance
Establishments
Information
Staff welfare
Reports
*Development section*
Statistics
Planning and projection analysis
School buildings
Registration of students and teachers
Research and development
Economics of education and insurance projects
*International educational division*
Bureau of external aid
Unesco National Commission
*Professional division*
Primary education
Secondary education
Technical education
Teacher training
Higher education
Adult education
Curriculum development
In-service training
Subject inspectors
*Scholastic services*
School libraries
School broadcasting
Examination and testing
Vocational guidance
School welfare
Scholarships
Visual aids

Figure 1. *Federal Ministry of Education: responsibilities (April 1965)*

not only the ministry's structure, but also the manning of the constituent divisions. As is the case in nearly every administrative body in a developing country, the federal Ministry of Education suffered from shortages of qualified personnel and a rapid turnover.

Given this background, it is not surprising that many of the sections of the ministry did not function in the way their appelations might lead one to expect. Thus 'Planning and projection analysis' was inactive because it had no personnel (as of May 1965). In the professional division, the sections dealing with the various levels and types of education had federal advisers but sometimes no other executive officers; moreover, the advisers apparently operated mainly as inspectors of educational facilities in the federal territory, though this may only imply that they were misleadingly named.

Another aspect of the work of the professional division which requires consideration with regard to the fostering of educational co-operation between federal and regional authorities is the Joint Consultative Committee. This was the parent body of a series of reference committees for teacher-training, primary, secondary, technical and rural education. These met periodically, in theory every six months, though in practice the parent committee at least met less frequently, e.g., the June 1965 meeting was the first for over a year. Committee meetings were attended by representatives of the federal and regional ministries of education, the university institutes of education, and teachers' and principals' organizations. Their purpose was to ensure interchange of information on educational progress in the regions, explore possibilities of inter-regional co-ordination, discuss the development of Nigerian education, and make recommendations to regional governments.

Examination of minutes of meetings of some of these committees suggests that their discussions did not always deal with problems important for educational planning; indeed, one regular participant in these meetings expressed the view that, as is often the case with inter-governmental bodies within a federal state, discussions were confined to rather minor and uncontroversial subjects. Another participant, a senior official of one of the regional ministries of education, gave the opinion that the meetings were always packed with representatives of the federal ministry (though attendance records do not always clearly show this), and would reflect strongly federal viewpoints. For our purposes the important point about such opinions is not their truth or falsehood, but simply their existence, with its implications for the conduct of regional officials concerned with educational planning. Consequently, the Joint Consultative Committee appeared ineffective as a device for co-ordinating federal and regional activities relating to education, and this in turn seriously lessened the potential role of the federal Ministry of Education as a co-ordinating mechanism for national educational planning. Indeed, one is forced towards the conclusion that there was no national educational planning, but rather a series of regional programmes operating to a large extent independently of each other, despite all the efforts of the federal ministry to overcome this situation.

It is against this background that the National Educational Research Council must be viewed. Its purposes were (a) to gather information on all educational research relating to Nigeria, whether completed, in progress or envisaged; (b) to set up a documentation centre to collate such research and studies as are relevant to Nigeria and to circulate them in the form of abstracts to Nigerian authorities; and (c) to prepare proposals for educational research by Nigerian institutions in accordance with the needs of the country. The council included representatives of the ministries of education, the universities, research bodies, and principals' and teachers' organizations. It could play an important role in Nigerian educational planning by maximizing the use of scarce research resources; but there was some suspicion in the regions towards the federal government which will have to be overcome if the council is to fulfil its purpose. It began its activities by compiling a list of educational research, completed or in progress, carried out by Nigerian institutions.

As can be seen from the foregoing, the role of the federal Ministry of Education in the planning of Nigerian education has been limited by many factors and especially by the constitutional division of responsibilities for education.

## The National Manpower Board

The National Manpower Board was one of the bodies whose creation was recommended by the Ashby Commission. Its basic task was to co-ordinate the work of all ministries concerned with manpower—at the federal level these were in particular the Ministries of Labour, Education and Economic Development. The board could only make recommendations to the ministries, though the fact that it is directly responsible to the National Economic Council, the supreme co-ordinating body in development planning, makes it more likely that ministries will take account of its recommendations. But discussion of the board's role in the preparation of plans is still largely academic, because it was set up after the current plan had been prepared (except that it worked out the manpower implications of the Mid-West development plan). At present, its importance lies in its role as a servicing agency for the ministries concerned with manpower, e.g., its annual recommendations form the basis of federal scholarship policy.

Its first major project was the survey of high- and medium-level manpower resources and projection of needs until 1970. Further tasks included a labour-force survey, and a compilation of available training facilities as a step towards ensuring their maximum use. The board is thus producing information which is of immediate relevance to educational planning. On the basis of such information the level of scholarship grants was reduced in order to permit an increase in their number and the allocation of scholarships between different subjects altered in accordance with manpower needs. This was done in the first instance by the federal government, but the advice was passed on to the regional scholarship boards for similar action.

The board was criticized by the regions, mainly on the ground that a manpower survey which set national targets was of no use in the endeavours of regional governments to meet regional requirements. There were regional manpower committees for liaison between the board and the regional governments, but they appeared to be inactive. Regional governments could direct the board to undertake specific studies for them, and on this basis the board worked out the manpower implications of the development plan for the Mid-West.[1] The usefulness of the board will thus depend on the demands made upon it by the regional governments. Initially, with its limited resources, the board concentrated on national matters. But, potentially, it represents a very valuable adjunct to educational planning, on the regional as well as federal levels.

## The National Universities Commission

This was another of the bodies established as a result of a recommendation of the Ashby Commission. An administrative agency, directly responsible to the prime minister, it came into being in October 1962.

The principal task of the commission relates to the financing of university development. It therefore began its work with a survey of university development, future needs and financing, making specific recommendations for the period 1963/64-1967/68. These recommendations, published in 1963,[2] concerned all the governments of the Federation, though in their financial aspects they involved primarily the federal government. Accordingly, before taking action on the commission's recommendations, the federal government consulted with the regional governments and then made its decisions in the expectation that the latter would follow suit.

As overseer of university development, the commission was naturally concerned with fostering this in directions which accorded with national manpower needs, though it recognized the danger of interfering with the independence of the universities and characterized its role as that of 'stimulation, encouragement and co-ordination'.[1] A basic policy was to encourage each of the five Nigerian universities to concentrate initially on certain faculties so as to make the best use of existing resources. In this way, the universities assumed a national role, although three of them were regional institutions. Indeed in selected instances faculty developments were intended to serve pan-African needs, e.g., medicine at Ibadan, veterinary science at Ahmadu Bello.

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[1] Mid-Western Nigeria, *Mid-Western Nigeria Development Plan 1964-68*, Benin City, Ministry of Internal Affairs, 1965. See ch. 8, 'Manpower Implications and Employment Potential of the Development Plan'.

[2] Federal Republic of Nigeria, *University Development in Nigeria, Report of the National Universities Commission*, Lagos, Federal Ministry of Information, 1963.

The commission was in close contact with the National Manpower Board—the commission's secretary sat on the board's policy committee—and was fully informed of future manpower requirements so that it could advise the universities accordingly. It also advised the Economic Planning Unit of the federal Ministry of Economic Development on the likely future output of the universities. Lastly, the commission acted as the channel for external assistance to Nigerian universities and, in this connexion, was also an *ex officio* member of the Co-ordinating Committee for External Aid for Education.

All these functions are of recent origin and post-date the preparation of the current plan, so that a fuller evaluation of their significance will only be possible when subsequent plans have been prepared. In the interim, the commission began undertaking a series of studies bearing on the output of secondary schools and the university input during the period 1968-72, on the administration and financing of higher education, and on student accommodation, to provide information needed for future decision-making.

The commission, as already mentioned, was directly responsible to the federal Prime Minister, and responsibility for university education in the regions also rested with the regional premiers. It is not clear why there was this sharp division of ministerial responsibility between the universities and other levels of education, though the strong belief in Nigeria that universities should be autonomous and independent may have led to the feeling that any degree of control over them must be exercised by the highest political authorities. This and the fact that the commission was associated with all federal agencies concerned with national development planning make it potentially an important body in the planning of education in Nigeria. The federal structure combined with regional autonomy and the division of responsibility as between the universities and other levels of education seemed likely to keep the commission rather remote from the activities of the regional ministries of education; in fact, there did not appear to be any direct formal channel of communication between the commission and the regional ministries of education. For the sake of over-all planning of education in each region such a link would seem desirable.

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[1] Federal Republic of Nigeria, op. cit., pp. 4, 9.

## The Federal Office of Statistics

This is the main source of statistical information in Nigeria, though, hitherto, educational statistics were the responsibility of the federal Ministry of Education. However, the Office schedule of work for the remainder of the current planning period (i.e., until 1967/68) under the heading of education included development of the current *Digest of Educational Statistics*, surveys of investment in human resources and of the output of different levels and types of education, and the collection of statistics on educational financing. It was not clear whether these tasks would be performed by the Office or by the federal Ministry of Education.

The Office also collects other data relevant to educational planning, such as in employment surveys, and intended to make sample surveys of the labour force which would include questions on literacy and level of education. Lastly, the Office is responsible for the collection of demographic data, which has meant principally the most recent census. Processing of the census data will take several years and should result in basic information for use in regional educational planning.

Of the agencies discussed above, the National Manpower Board and the National Universities Commission seemed the most important, both actually and potentially, for educational planning in particular, because they represented sources of information and expertise which could be utilized by the regional governments. There were definite signs that this was beginning to happen. But when considering whether it would be possible to devise better federal machinery for educational planning on a national level, one should bear in mind the delicate and complicated balance of power as between federal and regional governments and the suspicion with which the latter looked upon initiatives of the former. It is for these reasons that educational planning in Nigeria was a reality on the regional rather than the federal level, and must be considered in more detail in this context.

# 3 The planning process in the regions of Nigeria

Before analysing the planning process with its various stages as it has been carried out in the different regions of Nigeria, it will be useful to define clearly the meaning of certain terms and the nature of the planning process itself. It is only against such a conceptual background that the unfolding of a specific planning process can be properly analysed, and possibly this conception may be of interest to other analysts of experiences of planning.

## The nature of the planning process

The planning process entails action on a number of levels, corresponding to what are usually called 'project', 'programme', and 'plan'. The meaning of these terms is indicated by the title of a chapter in a United Nations publication: 'Integration of a Programme of Projects into an Investment Plan'.[1] Accordingly, a project can be defined as 'the smallest unit of investment activity to be considered in the course of programming', a programme as 'a co-ordinated set of projects';[2] and a plan as a co-ordinated set of programmes. The term 'co-ordinated' is important for, without co-ordination, a set of projects does not make up a programme nor a set of programmes a plan. In the context of an educational plan, a programme might be the expansion of enrolments in secondary education, and the relevant set of projects would then include such steps as the provision of new or the extension of existing secondary schools, the provision of secondary school teachers, etc.

The planning process can be divided into several stages. In the first place, the planners, before beginning the task of preparing a plan, must be given directives about its aims. These can only be set by the highest political authority in accordance with its general policies in the political, economic and social fields. The issuing of directives is then the first stage.

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[1] United Nations (ECAFE), *Programming Techniques for Economic Development*, Bangkok, 1960, Sales no. 60.II.F.3, ch. IV.

[2] Ibid., p. 33.

The second stage consists in the preparation of the plan by the planning agency, in accordance not only with the over-all aims as set out by the government's directives, but also with the amount of resources available to fulfil objectives consistent with these aims. If the resources are not sufficient, the objectives have to be scaled down accordingly.

This leads to the third stage, the approval of the plan by the government or another body, such as a planning council or the relevant ministry, specially entrusted by the government with this task. The plan thus approved goes into its fourth stage, that of implementation, which is followed by the fifth and final stage, the review of progress achieved in the fulfilment of the targets of the plan.

At the first glance, these five stages appear as consecutive ones. However, as soon as they are examined in detail, it becomes clear that the sequence in terms of timing is much more complex than this. It is suggested that this sequence depends to a large extent on the nature of the governmental and administrative structure within which the planning process is carried out and in particular on the freedom of action enjoyed by the planning agency.

In this context we can examine more closely the second stage following upon the issuing of directives—the preparation of the draft plan for approval. Such a draft may be simply a setting-out of the major targets of the plan, or it may be a very detailed exposition of the constituent programmes and projects required. The point here is that approval of the draft plan may relate only to the broad outlines of the plan and may be given before the detailed proposals have been worked out, the latter being left to the responsibility of the planning agency or even of some lower authorities. In other words, instead of saying that approval follows preparation, we are justified in saying that preparation must *begin*, but need not be completed, before approval. It follows that the implementation of the plan may also begin before the detailed preparation of it has been completed. Some projects, for instance, may be timed for the latter part of the plan period, and their detailed preparation can be left until earlier and more urgent projects have been completed. Similarly, the review of the progress of the plan need not await the completion of the implementation stage; in fact, it should begin in the course of it.

The conclusion is that, while the *beginning* of each stage may be expected to precede the beginning of the next stage, no stage need be completed before the next one starts. Thus several stages may be running concurrently, and the planning process may be represented graphically by Figure 2 (page 272).

In a planning process there is theoretically a distinction between planning and policy; the planner proposes, the policy-maker disposes. But in practice it is not always possible to make a clear distinction between the two. To the extent that

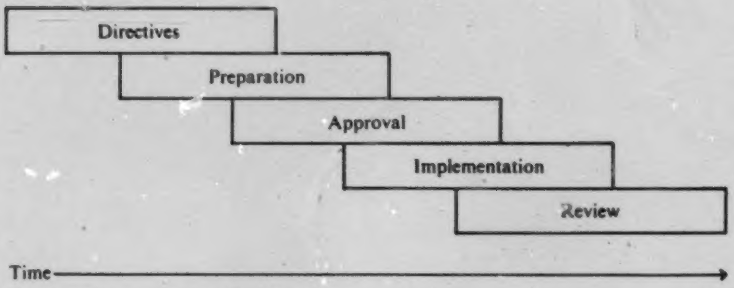

Figure 2. *The stages of the planning process*

the planning agency has freedom of action, it can formulate policies in detail, e.g., when the approval of the political authority is limited to the broad outlines of the plan or programmes, while the working-out of projects is left to the planning agency. We suggested before that a key factor governing the disposition through time of the stages of the planning process is the structure of authority surrounding the planning agency. This now becomes clearer, e.g., to the extent that responsibility for approval of the plan and its contents is concentrated at a level above that of the agency so the latter must complete preparation of the plan before approval takes place. Dissatisfaction on the part of the approval body with the initial proposals of the planners may result in their return for reformulation and resubmission. Similarly the extent to which preparation of all the details of the plan is concentrated in the planning agency is likely to determine, at least to some extent, how far preparation work is completed before implementation begins. Also the nature of the link between the educational planners and the highest government authorities may help to determine how far the planners feel able to begin work on preparing a plan before they receive the government's directives.

Naturally in a country which embarks on its first plan, the apparatus for planning has to be created, and here the biggest problem is the lack of resources for planning, especially of personnel and information. The former may initially be overcome by importing foreign experts, who should train local replacements. But then the changeover to local staff creates a discontinuity in the planning process, particularly in the initial period. In any event a priority task of any planning personnel is the creation of machinery and procedures for the collection and processing of the necessary data for planning.

Another difficulty arises from the lack of familiarity with planning among those at the political level who are charged with issuing directives and approving proposals. In issuing their directives, they may make unrealistic or even conflicting demands on the planners, and in approving—or rejecting—proposals, they may use wrong criteria for evaluating them.

The inter-ministerial linkages demanded by educational planning are also a potential source of failure in an initial educational planning exercise.[1] The education ministry needs close contact with ministries such as finance, public works, local governments, labour, and economic development in planning a comprehensive development of education in relation to national development. It is essential to establish with the relevant officials in other ministries the implications of the plan in the areas of their competence, and to make sure that they make allowances in their own work accordingly. This is easy to state: it may be less easy to carry out in a framework of government not adapted to such consultations.

When planning begins, officials have to adjust to the idea of working with programmes which may run throughout the planning period, instead of having their operations dominated by an annual expenditure budget. This adjustment is not easy, especially in the case of the ministry of finance, whose revenue-collecting activities in particular are organized on an annual basis. The order of priorities for the fulfilment of planning objectives, in education as in any other activity of government, does not accord with the criteria for support of projects used by the ministry of finance working with annual budgets. In Eastern Nigeria in 1965 these were stated to be (a) the revenue-producing potential of projects, (b) the availability of foreign aid to support local financing, and (c) the need to preserve a balance between capital and recurrent expenditure to maintain on-going projects before initiating new ones. The implications for government financial operations of the adoption of planning as a technique of governing are a relatively neglected topic, since satisfactory implementation of a plan on schedule requires long-term financial commitments, presented in the form of programme budgets, which go beyond the horizon provided by a framework of annual budgets.

But perhaps the biggest hurdle to overcome is in the implementation of the plan, because it presupposes the existence not only of an efficient central machinery, but also of a system of local administration capable both of carrying out instructions from above and of reporting back to the centre on the progress achieved. For the purposes of educational planning, an efficient inspection service is essential to success. Thus in the following pages we shall deal at some length with the local administrative arrangements for educational inspection.

It now remains to consider, against the background of the conceptual framework sketched above, the ways in which the five stages of educational planning were carried out in the four regions of Nigeria.

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[1] See Raymond Vernon, 'Comprehensive Model-building in the Planning Process: the Case of the Less-developed Economies', *Economic Journal*, London, March 1966, pp. 57-69, and the references therein, for further discussion of this and associated points.

## Directives for planning

This first stage of planning is the one which so far has received least consideration in Nigeria, and about which very little information is available. The politicians are the people most concerned at this stage of the planning process. Indeed a recent commentator[1] has stated, with reference to West Africa as a whole, that 'it is no longer possible, as in the colonial days, for senior civil servants to act largely on their own initiative. They no longer formulate government policies, but, rather, provide policy advice and implement policy decisions made by the political leadership. Indeed civil servants in West Africa have often found it difficult to perform even these functions. Politicians in most of these states frequently make important policy decisions, without the advice of their civil servants. Moreover, political leaders and party officials interfere to an excessive degree in even the detailed implementation of government policies and programmes'. What leads politicians to advocate certain broad educational aims as national or party educational policies? What influences the educational thinking of political leaders responsible for initiating the development of new nations?

These questions are not easily answered. Recent educational planning in Nigeria has taken place within the framework of the federal and regional components of the National Development Plan 1962-68, and directives for planning derived from several sources of power and opinion, in particular regional ministries and boards of education and various independent commissions appointed to review the educational system and make recommendations with a view to its further development.

Each regional ministry of education had an advisory board of education, composed of representatives of the ministry, the local education authorities, the voluntary agencies, private institutions and teachers' organizations. The board of the Northern Region included in addition members of parliament and representatives of the university and of Islamic learning. The role of the boards was to make recommendations to the Minister of Education on policy matters referred to them. But discussion with various ministry officials suggested that, except in the North, the boards did not have a significant influence in originating policies.

A far greater influence on the formulation of policies was exerted by the reports and recommendations of a number of specially appointed commissions.[2]

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[1] Richard L. Harris, 'The Role of the Civil Servant in West Africa', *Public Administration Review*, Washington, D.C., December 1965, pp. 308-13. The quotation is from pages 308-9.

[2] Federal Ministry of Education, Nigeria, *Investment in Education, The Report of the Commission on Post-School Certificate and Higher Education in Nigeria*, Lagos, Federal Government Printer, 1960 (The 'Ashby Report'). Ministry of Education, Eastern Nigeria, *Report on the Review of the Educational System in Eastern Nigeria*, Enugu, Government Printer, 1962 (The 'Dike Report'). *Report of the Conference on the Review of the Education System in Eastern Nigeria*, Enuku, Government Printer, 1964 (The 'Ikoku Report'). Government of Western

Of these, the most significant was the report of the Ashby Commission which provided the basis for the expansion of primary education in Northern Nigeria, the impetus to create the National Manpower Board and the National Universities Commission, a first analysis of Nigeria's future requirements for qualified manpower, and an impulse for the expansion of sixth forms, science teaching, technical education and advanced teacher training, and also focused attention on the utilization of foreign aid for educational development. The Oldman Report in Northern Nigeria, through its recommendations with regard to the development of educational inspection services, amendments of the education law and, above all, the proposal setting up local education authorities, provided much of the foundation for subsequent educational planning in the region. In Eastern Nigeria, the Dike Report foreshadowed the emphasis in the region's programme on the expansion of secondary education, particularly with regard to science, on the rationalization of teacher-training facilities, and on the development of technical and vocational education in line with manpower needs. In the Western Region, the Banjo Report led to steps to improve the structure of the Ministry of Education and of local administration, and to certain modifications in the system of secondary modern schools, though it would seem to have had fewer practical results than the other reports, perhaps owing to the political and economic difficulties experienced by the Western Region. It is interesting also that this Report contained a section[1] on the significance of the Ashby Report for the West.

All these reports had influence not only on the ministers of education who were responsible for inaugurating them, but on governments in general, and they were a potent factor in the formulation of directives for educational policies. This was no doubt connected with the eminence of the people who sat on the commissions and with their first-hand experience of conditions in Nigeria or elsewhere in Africa.

It is much more difficult to assess the relative influence of the various ministries concerned in the formulation of educational policies, particularly the ministry of education and the ministry of economic planning in each region. According to an expert who participated in the process in Eastern Nigeria,[2] the executive ministries there each enjoyed considerable freedom of action in the initial proposal of projects. This suggests that the main responsibility for directives for educational planning rested with the Ministry of Education. However, the contents of the plan were influenced at a later stage, that of approval, by other regional ministries,

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Nigeria, *Report of the Commission Appointed to Review the Educational System of Western Nigeria*, Ibadan, Government Printer, 1961 (The 'Banjo Report'). Northern Nigeria, *The Administration of Primary Education*, Kaduna, Government Printer, 1961, ('The Oldman Report').

[1] Chapter III.

[2] Frank J. Moore, 'Development Planning in Eastern Nigeria', *Journal of Local Administration Overseas*, London, July 1964, pp. 136-44.

particularly the Ministry of Economic Planning, within the framework of inter-ministerial committees. In addition the Ministry of Economic Planning initially had the assistance of the federal Joint Planning Committee in establishing policy guidelines for the subsequent approval of regional ministerial proposals. A somewhat similar situation appears to have prevailed in the North.

It seems less likely that this independence of the executive ministries with regard to planning could be maintained in the future, since the planning organs were established more or less simultaneously with the initiation of the present plan and hence had no time to assert independent lines of action.

## Preparation of plans

In the case of Nigeria, it is not possible to speak straightforwardly of the preparation of educational plans, since there were no specifically educational plans[1] nor, except in Northern Nigeria, educational planning units, before 1965. Thus this second stage of planning was limited to the preparation of programmes of educational projects in the context of the National Development Plan by senior civil servants in regional ministries of education. There was, however, an earlier instance of the preparation of a partial plan—the plan to introduce universal free primary education in Western Nigeria—and we shall consider this briefly before discussing the preparation of the educational programmes in the current National Development Plan.

### *The preparation of universal free primary education in Western Nigeria*

This provides an instance of planning where the government gave a lead and invoked local assistance to facilitate expansion of an educational system where many facilities were to be provided from sources other than the government, though with significant government financing. The preparation of the programme began in 1952, nearly three years before it was to come into effect. However, it started without the most fundamental prerequisites for planning—even the basic population data were lacking, as were personnel with previous experience of similar work. Trial and error was the rule rather than the exception, and it took nearly a year to evolve a consolidated questionnaire for the gathering of the necessary statistical information. The work of gathering this information and then planning the development of facilities to operate the new policy devolved, partly, on the very small staff of the Ministry of Education and, partly, on the educational officers responsible for the eight provinces then constituting the Western Region. They in turn established a series of district planning committees, usually corresponding to a district council area and set up by the existing local education committees.[1] The planning committees were composed of local people, including chiefs, councillors, teachers, missionaries and traders, one of them acting as chairman. Each committee had as secretary a government visiting teacher (GVT), roughly equivalent to an area inspector of education, who usually acted as secretary to several committees in addition to his normal duties. The GVTs formed the lowest echelon of the planning staff, expounding and enforcing government policy in their committees. They were kept informed of government policy by means of circulars and regular meetings with the provincial officers, who acted as the link between the ministry and the district planning committees.

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[1] For the meanings attached to the terms 'plan', 'programme', and 'project', the reader is referred to p. 270 of the present study.

A major task for this machinery was the registration of all children who would be 6 years old in January 1955, the potential first intake of the programme, and a survey of available class-room accommodation. This was undertaken in July 1954 by the district planning committees, operating through headmasters. But, in the absence of a system of registration of births, it was found that the number of 6-year-old children in January 1955 greatly exceeded the number derived from the 1952 census which had formed the basis for initial planning. In consequence, the numbers of class-rooms and teachers initially proposed were found to be inadequate, particularly in the towns, where the discrepancy was greatest and where it was most difficult to find sites for additional schools, and a considerable late effort was necessary to accommodate all the children.

It must be added that the GVTs, who were the key men at the local level in the preparation of the plans, had many other duties unconnected with this task, that communications between the regional capital and the local centres were slow and irregular, and that the inexperience of the ministerial planning staff often resulted in imprecise or inadequate instructions to GVTs which needed subsequent correction. Hence the considerable delays in the process of gathering information.

On the basis of the information, the GVTs drew up plans for approval by their district planning committees and subsequent submission to the provincial officer and the ministry. After the ministry's approval, work began on the expansion of existing schools or the buildings of new ones by the proprietors, i.e., local authorities and voluntary agencies, aided by a government grant of £200 per class-room. The GVTs had the additional task of reporting progress to the ministry.

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[1] For an account of the work from the point of view of a provincial official, see R.E. Crookall, 'Universal Education in Western Nigeria', *Overseas Education*, London, April 1958, pp. 3-11.

Simultaneously, the Ministry of Education had to ensure the availability of the necessary resources, which meant in practice organizing the training of the additional teachers needed and finding the necessary finance. Capital expenditure was financed by means of grants from the reserves of the Cocoa Marketing Board, and the additional recurrent expenditure mainly from supplementary indirect taxes, again largely on cocoa. But owing to the instability of cocoa prices on the world markets, this proved a source of built-in weakness. When prices fell the ability of the Western Region to support the recurrent financial burden was seriously impaired but, because of the legal commitment to provide universal free primary education, this limited the capacity to provide other services.

The greatest mishap was the discovery, a few months before the scheme was due to be put into effect, that the number of children registering for inclusion, and hence the requirements for class-rooms and teachers, were much higher than expected, thus impairing the effectiveness of the arrangements made in advance to train extra teachers. Thus when the scheme became operational in January 1955 there were only just over 4,000 trained and certificated teachers as against 26,000 untrained or partly trained,[1] and even by 1958 less than one-third of the primary school teachers were classified as trained.[2] Because of the initial failure to discover far enough in advance the scale of the requirement for teachers there was an impairment of the subsequent quality of primary education in Western Nigeria, which perhaps partly accounted for high rates of wastage, in turn lessening the effectiveness of a large segment of government expenditure. This traces back ultimately to the unpreparedness of government personnel for undertaking such an exercise, which in turn highlights the crucial importance in a planning exercise of having some trained personnel available.

### *The preparation of educational programmes within the National Development Plan 1962-68*

It should be said at the outset that in studying even the recent history of planning in Nigeria the main difficulty is lack of first-hand information, which is the result of the mobility of the personnel involved. Nigerianization has resulted in the replacement of most of the expatriate staff, and the Nigerian replacements themselves have moved rapidly between posts to meet the most pressing shortages, or have gone abroad for further training. Thus the occupants of the relevant posts in 1965 were usually not the people who prepared the educational proposals for the National Development Plan in 1962, and hence it is less easy to evaluate this work as an instance of the preparation stage of an educational planning exercise.

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[1] O'Connell, op. cit., p. 119.

[2] J.E. Adetoro, 'Universal Primary Education and the Teacher Supply Problem in Nigeria', *Comparative Education*, Oxford, June 1966, p. 210.

As indicated above, the recommendations of the various *ad hoc* commissions have been reflected in planning proposals in all regions. In Northern Nigeria, the Ashby ten-year targets for primary, secondary and higher education led to the White Paper on Education Development, and were then scaled down to the six-year period of the development plan. In Eastern Nigeria, the educational proposals of the plan, with their emphasis on technical education, were also based on the Ashby recommendations, though it is not clear how the figures for Nigeria as a whole given in the Ashby Report were translated in terms of Eastern Nigeria's needs.

Each region's educational proposals were set out in the National Development Plan, together with the annual allocations for expenditure over the planning period. But it was not made clear how these figures were arrived at, though it would seem that the initial financial allocation acted as a ceiling on the scale of the proposals. The choice of projects in each region appears to have been made by the respective ministries of education through their senior civil servants, though the ministries of economic planning have formally the responsibility for the preparation of the plan in each region. But in the case of Eastern Nigeria, the Ministry of Education, and the executive ministries in general, were encouraged to submit proposals of their own to the Ministry of Economic Planning, partly because the latter was short of competent staff, and partly to encourage smooth co-operation between the ministries concerned.[1] Similarly, in the North, a newly established Ministry of Economic Planning had little control over proposals submitted by the Ministry of Education. In the West, there seems to have been inadequate project analysis by ministries, reflecting a lack of qualified personnel.[2]

If all these steps appear as very limited exercises in educational planning, they should be viewed in the light of the considerable difficulties and obstacles which they faced in the different regions. Among these we discuss below in greater detail the opposition of some influential interests to the idea of government control over education, the lack of statistical data, the lack of information on educational costs, and the extreme shortage of qualified personnel.

To take the first of these obstacles, some important interests in the Nigerian educational community were unwilling to consider the idea of government control over education being extended beyond the traditional role of setting standards to be observed by the proprietors of schools. Thus in Eastern Nigeria the Dike Report stated[3] '... the Catholic mission which owns and controls a little less than

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[1] Moore, op. cit., p. 138.

[2] *Western Nigeria Development Plan 1962-68, First Progress Report*, Ibadan, Government Printer, 1964, pp. 2-5.

[3] Dike Report, op. cit., pp. 44-45.

50 per cent of the schools in the region and which received well over £1 million last year from the state to run these schools, is opposed to state education'. The report went on to support this forthright statement with quotations from Catholic publications. The tenor of these was that Catholic opinion was opposed to any scheme of rationalization of facilities for primary education, even where these were wastefully duplicated by various voluntary agencies, on the ground that it might result in some Catholic children not having easy access to Catholic schools. Similarly it was not felt that the provision of religious education in a system of state schools was an adequate substitute for existing Catholic education facilities. Again the Ikoku Report stated[1] '... there has been a culpable lack of *co-ordinated planning*. Government has been content to demand the minimum requirements for efficiency while giving the agencies a blank cheque for educational expansion' and '... no one will question the right of Government ... to plan a national system of education within the capacity of the national economy to bear'. The report went on to call for the amalgamation of uneconomic school units. However the Catholic education secretary, who was a member of the Ikoku Commission, felt obliged to dissociate himself from adherence to these statements, singling out the proposed school amalgamation policy as open to objection.[2] In such a climate of opinion meaningful educational planning was difficult to contemplate.

In parts of the North, there has been very little enthusiasm for any but Moslem education, and the main problem consisted in getting the children into the schools. In view of the large measure of authority exercised by local rulers in this region, it was necessary to encourage these leaders to support educational development. This was done by establishing a network of local education authorities, each serviced by a specially trained education officer, in which local dignitaries became members. The preparation stage of educational planning in the North was thus concentrated on the formulation of local plans at the local level by the education officers, naturally subject to the supervision of the Ministry of Education planning unit.

Another major obstacle to the preparation of plans was the lack of statistical information. In fact, one of the reasons for developing local planning machinery in the North was to aid the collection and transmission of local statistical information. The North has possibly the most useful collection of published data for educational planning, though of limited duration. Since 1961, it has been publishing an annual volume entitled, *School Statistics of Northern Nigeria*, later changed to *Classes, Enrolments and Teachers in the Schools of Northern Nigeria*, and there was an intention to publish separate data on educational expenditures. However, there was inadequate information on the stock of buildings and equipment, or the additions to that stock, and, above all, no information on the size of the population. This last question became a matter of political dispute, and lack of information on this subject constituted a major obstacle to educational planning.

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[1] Ikoku Report, op. cit., p. 2.
[2] Ibid., appendix G.

In Eastern Nigeria there was also a lack of demographic information and, in addition, the region had nothing to compare with the staff and organization card of the North, which had to be completed annually by each primary school headmaster to provide data on teachers, buildings, enrolments, attendance and school leavers. Instead, the East made use of the grant-in-aid applications to gather data on the numbers, salaries and qualifications of teachers and the number of pupils in each class. Some effort was being made to collect other data, but their processing had been very slow. The only regular publication containing statistics was the *Annual Report of the Ministry of Education*, which appeared with a delay of two to three years.

In Western Nigeria the machinery for the collection of statistics was centralized in the statistical division of the Ministry of Economic Planning and Community Development. Its publications included an *Annual Abstract of Education Statistics*. This contained data on numbers, types and proprietorship of educational institutions, on enrolments, numbers and qualifications of teachers, but very little on expenditures for education. The main means for the collection of data were questionnaires sent directly to schools, but the rate of response was not known. The arrangements for the collection of statistics were to be changed in 1965, with individual ministries taking over responsibility for the collection and dissemination of statistics in their respective fields. Thus, a new planning and research section within the Ministry of Education, headed by a curriculum, planning and research officer, was to be responsible for educational statistics.

The regions had varying administrative arrangements within their ministries of education for the collection and processing of statistics. That for the West has been mentioned above. In the East, this task was performed by the statistics section in the Ministry of Education which, in May 1965, had one US-AID expert and two Nigerian assistants under training. In the North, it was carried out by the statistics section in the planning division of the Ministry of Education, run by a Nigerian trained by a US-AID expert.

Apart from the uncertainty with regard to demographic data, the inadequate information on educational costs was frequently stated by officials to be a major obstacle to the preparation of educational plans in Nigeria. It also contributed to the difficult relations between ministries of finance and ministries responsible for planning. It was difficult to predict with any certainty how much finance would be available for the period of the National Development Plan, for several reasons. Foreign aid, which had been assumed to cover 50 per cent of the capital expenditure of the plan, amounted in fact to only 12.3 per cent during the first two years, or 20.9 per cent if the value of technical assistance is included.[1] In fact, the position was even less satisfactory than is suggested by these figures, since donors often offered aid for projects which were not in line with the priorities of the plan. Another source of finance, the government receipts from export earnings, can vary considerably in accordance with trends on the world's markets, and international prices in fact declined in recent years. The amount of government revenue was therefore uncertain, and this made it difficult for ministries of finance to guarantee advance support of projects in the plan.

But the costing of the projects by the ministries of education was also insufficiently detailed. Their demands on the ministries of finance tended to be 'open-ended', as, for instance, the Eastern Region's project called 'Ashby Report recommendations not elsewhere specified' which accounted for half of the region's projected capital expenditure on education under the plan and for well over 80 per cent of recurrent expenditure; the plan simply stated that detailed recommendations and their cost would be worked out in the course of the plan period.[2] Conversely the finance ministry then lacked criteria for allocating money between the projects of different executive ministries. This not only forces a ministry of finance to use some rule of thumb in allocating available finance between the various executive ministries, but can also delay foreign aid to education, because donors are often unwilling to commit funds without having detailed information on the projects for which these funds are going to be used.

Thus the figures set down in the plan for expenditure for educational projects should be considered as tentative in the extreme. No doubt, planners find it difficult to prepare projects when there is so much uncertainty about the possibility of financing them, but neither can ministries of finance find it easy to allocate funds to projects whose costing and phasing are inadequate.

All or most of these difficulties and obstacles in preparing plans were due in the last resort to one primary cause—the lack of qualified personnel, qualified, that is, for planning education. In most cases, the officials who carried out this work had had extensive experience as inspectors or principals of educational institutions, but no experience of planning, of relating the components of an educational system together in terms of timing and of stocks and flows, whether of finance, teachers, pupils or class-room accommodation. The question arises, and not only in Nigeria, whether educators who have been primarily concerned with administering the standards of an educational system can be expected to cope successfully with the problems involved in planning both quantitative and qualitative educational development, or whether a better solution, wherever possible, would be to entrust such tasks to personnel specifically trained for this purpose and working in close conjunction with the existing experienced educators.

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[1] Federal Republic of Nigeria, *National Development Plan, Progress Report 1964*, Lagos, Federal Ministry of Economic Development, 1965, p. 34.

[2] Federation of Nigeria, op. cit., p. 248.

In considering the various regions, no mention was made of the Mid-West. This region was established only in 1963 and subsequently produced a development plan for the period 1964-68. As far as educational development is concerned, the preparation was rather different from that of the programmes discussed above. An important role was played by the National Manpower Board, which undertook a survey to discover the manpower implications of the proposals for development. In the light of the findings of the manpower board and in view of the region's very limited financial resources and almost complete absence of statistical information, it was decided to lay the emphasis on qualitative improvements of the existing educational structure so as to ensure the essential manpower requirements provided for in the plan. This was to be achieved by extending government-owned educational institutions to every part of the region so that they should act as models for private institutions, many of which left much to be desired. The projects bore mainly on the improvement and expansion of facilities for scientific, technical and vocational education in line with manpower needs. Indeed, it may be said that, within the limits of its financial possibilities, the Mid-West plan laid a stronger emphasis on education as a prerequisite for economic development than any of the other regions, with particular stress on the quality of education as distinct from mere quantitative expansion.

As can be seen, the main obstacle to the preparation of plans in Nigeria was the lack of statistical information. The situation has perhaps best been summed up by Moore, and his statement with reference to the Eastern Nigeria plan for 1962-68 can be extended to the rest of the National Development Plan.

> 'It is well to think of the plan as published as a satisfactory first approximation —an outline of suggested solutions to roughly defined problems—which will be refined by stages and over time, as more facts become available and as experience is gained on the job of working along the directions set by the plan.'[1]

## Approval of plans

When considering the third stage of planning, it may be asked whether this stage begins when the planners initially submit a set of proposals for approval and continues until a final set of proposals has received political approval and been embodied in legislation; or whether the approval stage should be confined to the final act of acceptance and legislative sanction, the submission of successive drafts and the ensuing discussions between planners and authorities being treated as part of the preparation of plans. According to our concept of the planning process as a series of successive but overlapping stages, it is clear that the approval stage begins with the initial submission of proposals and continues until the final proposals receive approval and legislative sanction. Equally, the preparation stage does not stop when the approval stage begins; the two continue together, preparation ceasing only when a set of proposals is accepted by the government. It is on this basis that we shall consider the rather similar methods used for the approval of both the federal and regional programmes contained in the National Development Plan.

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[1] Moore, op. cit., p. 144.

The arrangements at the federal level have already been mentioned previously in connexion with the federal contribution to educational planning, but we shall refer to them in so far as they affect regional arrangements.

In the Eastern Region, the first step in the approval stage was the consideration of the projects by the Standing Working Party, a group of officials from the Ministries of Economic Planning, Finance, Works, Commerce, Agriculture, and the premier's office, with officials of other ministries as and when their projects were under discussion. Within this group, the Ministry of Economic Planning had an advisory and co-ordinating role. The recommendations of the Standing Working Party were then transmitted to the Economic Committee of the government, composed of the ministers of the Cabinet, the permanent secretaries for finance and economic planning, and a representative of the Eastern Nigeria Development Corporation. This committee in turn made its recommendations to the Executive Council, the final arbiter. If at this stage there was still disagreement between an executive ministry, such as the Ministry of Education, and the Ministries of Finance and of Economic Planning, each submitted its views separately. Initially, the basic criterion for the evaluation of a project was the general availability of financial resources, followed by criteria of feasibility. This approach was adopted, partly, because of lack of personnel qualified to appraise projects. But, as already noted earlier, such an approach makes it difficult to allocate financial resources to a project whose costs have not been determined, and constitutes a serious obstacle to successful planning.

The Western Region machinery was similar to that of the East for the approval of plans. But in the North, the machinery centred on the Regional Planning Committee, the members of which were the ministers of economic planning and of finance, their permanent secretaries, and the premier's secretary. The meetings of this committee were also attended by the official—usually the permanent secretary—of the executive ministry whose projects were under discussion.

The important element in the Northern Nigeria Ministry of Economic Planning was the Economic Planning Unit, whose responsibility was to indicate to the committee the policy implications of the proposed projects. In addition, it had to approve any changes in the nature or cost of the projects approved for inclusion in the plan. There was an intention to expand this unit by creating a project evaluation team, probably staffed by an engineer, an economist, and a financial expert, which would work primarily on the evaluation of projects for the next plan, but also on some carry-over projects, studying their relation to the priorities of the plan and their recurrent cost implications. This team was expected to co-operate closely with the Ministry of Finance, making recommendations to the latter on both capital and recurrent expenditures. It would seem then that the executive ministries, such as the Ministry of Education, could not have as much freedom in submitting proposals for any future plan as they probably had in the case of the current plan. With such development of central planning machinery, the Ministries of Finance and of Economic Planning seemed to be disposed to assume a much more active role in the planning process.

The Mid-West Region, possibly benefiting from the experience of the other regions, paid special attention to the educational projects in its development plan with a view to minimizing the huge burden of recurrent expenditure carried by the Eastern and Western Regions. The educational projects were first formulated by the Ministry of Education, in consultation with the Ministry of Local Government, and then commented upon by the Ministry of Economic Development in the light of plan priorities and of the availability of resources. However, the key body in the formulation of the plan, the Economic Planning Committee, felt that too much was being proposed for education and, accordingly, an *ad hoc* working party on Government Expenditure on Education was established to consider ways of pruning the proposals and establishing an order of priorities. The working party comprised the secretary and under-secretary of the premier's office and the permanent secretaries of the Ministries of Education, Finance, Local Government and Economic Development. Its role was to ensure that educational proposals were in line with the priorities of the development plan. The final approval was given by the government with the concurrence of the Economic Planning Committee, most of whose members also had first-hand experience of education owing to the fact that the teaching profession has traditionally been the avenue of African advancement to higher administrative posts.

The co-ordination of regional and federal planning for the 1962-68 National Development Plan took place mainly within the Joint Planning Committee in Lagos. The regions also had to inform the federal Economic Planning Unit of their projected programmes so that the necessary requirements for foreign exchange, and finance in general, could be calculated in advance. Conversely, the unit advised the regions of likely changes in the distributable part of the federal revenue which could affect the ability to finance the regional programmes.

The actual and projected developments in the Northern and Mid-West Regions suggest that efforts were being made to improve the machinery for the approval of educational proposals. Much would depend, however, on the qualifications of the personnel involved, and their capacity to evaluate projects submitted to them in the context of the requirements of the plan. In this connexion Clark comments unfavourably with reference to the work at the federal level on the National Development Plan.[1]

## Implementation of plans

In considering the implementation of educational programmes and projects in Nigeria, we are concerned primarily with the personnel and procedures involved. The discussion of personnel requires that we take account of the complex structure of control over education in Nigeria. In our brief discussion earlier of the current progress of education in Nigeria, we showed the division of proprietorship of schools in each region between government, local authorities and voluntary agencies. From this it follows that the contacts between government, the various proprietors, the network of local educational administration and the school inspectors are numerous, and hence it is a complicated matter to elaborate the precise nature of procedures in the implementation stage in Nigerian educational planning.

### *The Eastern Region*

The process of implementation differed between primary and secondary levels, and between the three main proprietors, i.e., the voluntary agencies, the local authorities, and the government. We consider first primary education.

In the larger voluntary agencies, there was an elaborate hierarchy of officials concerned with education. For example, for the Catholic missions there was an education secretary who acted as liaison between the government and the bishops, who were the nominal proprietors. Each bishop had a supervisor of schools for every 200 schools in his diocese, and each school had a manager, usually the parish priest, who managed one or several schools in the parish. In addition, there was a regional Catholic education committee, composed of one priest and one layman from each diocese, the priest being usually the supervisor of schools. This hierarchy may be shown by Figure 3.

Key men were the education secretary and the supervisors of schools, both paid by the government. They advised the bishops and gave instructions to school managers, thus acting as a two-way channel of communication. In addition, the education secretary, who acted as liaison between the bishops and the government, dealt directly with the principal or senior inspector in the Ministry of Education on educational matters, and with the chief accountant's office on financial

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[1] Clark, op. cit., pp. 273-4.

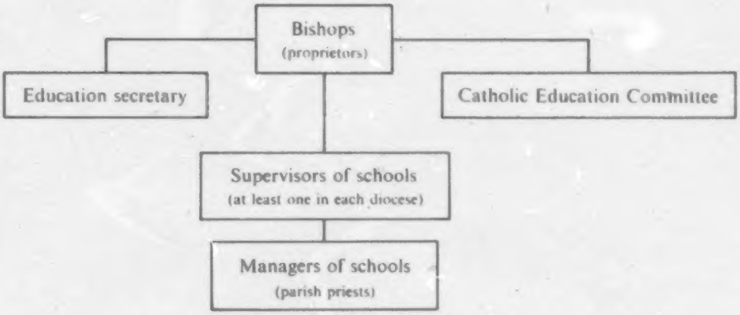

**Figure 3.** *Eastern Region: organization of a voluntary agency (Catholic schools)*

matters. Conversely, ministerial directives concerning the running of mission schools were transmitted through him.

In the local authority school system each urban or county council acted as proprietor within its area, with its clerk as manager of the schools. The councils functioned through their education committees, and the key men who acted as liaison between the committees and the schools under their authority and who transmitted the decisions of the Ministry of Education were the education assistants. However, the peculiar feature of this structure was that the education assistants were responsible not to the Ministry of Education, but to the Ministry of Local Government. Their task was to supervise the implementation of directives by the schools, while members of the inspectorate, who were employees of the Ministry of Education, had the task of checking that such implementation was in fact being carried out. Such division of responsibilities was pregnant with difficulties and, indeed, the Ministry of Local Government emphasized the need for education assistants to co-operate with the inspectorate instead of trying to assume its duties. However, it would seem difficult to assume responsibility for the functioning of the schools without appearing to be carrying out the tasks of the inspectorate.

In 1965 new primary schools could be created only by local authorities, the voluntary agencies having been restricted to the establishment of secondary schools. However, local enthusiasm for education was not matched by the ability to collect local taxes, and educational expansion thus often had the result of impairing the functioning of other local services.[1] But if this constituted an argument in favour of the Ministry of Local Government being directly concerned with the expansion of primary education (its authorization was required for the opening of new schools), it is not clear why it rather than the Ministry of Education should have been concerned with the daily administration of the schools; e.g., the routine ordering of school equipment was done under the authority of the education division of the Ministry of Local Government. Hence the situation in which this ministry appeared to play an independent role in the educational activities of local authorities does not seem very logical. If the education assistants had been under the control of the Ministry of Education, it would have been much easier to harmonize their work with that of the inspectorate. This does not mean that the Ministry of Local Government would have had no say in such matters as the expansion of educational facilities by local authorities.

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[1] S.W.C. Holland, 'Recent Developments in Local Government in Eastern Nigeria', *Journal of Local Administration Overseas*, London, January 1963, p. 13 and ff.

The arrangements with regard to government schools have been ignored above, since these schools represented a very small segment of the educational system.

At the secondary level, the system was administered directly by the Ministry of Education through its headquarters inspectors (the professional division), i.e., the principal and senior inspectors of secondary education and the inspectors for science, English, and commercial subjects. The senior inspector of technical education had the special responsibility of liaison with the Ministry of Works with regard to the building of government schools. Contact was direct between the inspectors and the proprietors and principals of secondary schools.

The administration of primary education, as it devolved from the ministry to the local level, was carried out mainly by the senior assistant inspectors, who were deputies to the zonal inspectors. They replaced, in 1964, the senior provincial education officers who had been in charge of the local administration of education, which thus became the responsibility of the inspectorate. The main task of the senior assistant inspectors was the administration of the grants-in-aid system within their area, and in this they were aided by two audit offices, staffed by executive officers, which worked in the field and also audited the accounts of school managers. The senior assistant inspectors were responsible to the principal and senior inspectors of primary education based in the ministry.

As can be seen from this description, the various channels for the implementation of educational decisions—which reflected the various interests in the educational system—formed a disjointed structure which was conducive to a loose and limited government control over education; the mechanism was complex and tended, therefore, to be inefficient. Such inefficiency encouraged frequent failures in the implementation of educational decisions.

We now examine in more detail the role of the inspectorate in the implementation process, bearing in mind that this was only one of its tasks.

The inspectorate could be divided into two parts, the headquarters and the field staffs, and, broadly speaking, the latter was responsible for primary education, while the former dealt with secondary education. The main task of the inspectorate consisted in criticism of malpractices and encouragement of initiative in the schools. In the process, checks could be made on the implementation of educational decisions concerning the expansion and improvement of the educational system. Thus, seen from the viewpoint of proprietors and teachers, there were both positive and negative aspects to the role of the inspectorate. This needs to be emphasized because there is a popular image among teachers, and not only in Nigeria, that the inspector is primarily a restrictive influence on the educational system, less an agency of change than a means of discipline. If this emphasis can be made clear then, aside from formal duties such as the administration of tests for teachers, the inspectors can report on the implementation of both quantitative and qualitative improvements of education, and encourage these where they are lagging, commend the initiatives of energetic teachers, inspire or even reprimand the less efficient. Thus, the inspector has a very significant role to play in the modernization of an educational system. Because of the local knowledge which he acquires through systematic visits to the schools, he is also well qualified to advise the ministerial planners on the relevance of their proposals to local conditions and to make suggestions for appropriate modifications. Table 5 below shows the distribution of the field inspectors between the different provinces, derived from Ministry of Education data.

The actual inspection of primary schools was carried out by the inspecting assistants, who stayed for a period in each district. They were, therefore, the main link between the teachers and the authorities. The grade II (junior) assistant would usually have a grade I teaching certificate and about ten years of teaching experience. After some five years of service, he could expect to be promoted to

TABLE 5. Field inspectors in 1964

| Province | Zonal[1] inspectors | Senior assistant inspectors | Assistant inspectors | Inspecting assistants | Ratio of inspecting assistants to primary teachers |
|---|---|---|---|---|---|
| Abakaliki[1] | 1 | 1 | — | 3 | 1:928 |
| Annang[2] | | 1 | — | 2 | 1:1030 |
| Calabar[2] | | — | 1 | 1 | 1:751 |
| Degema[3] | | — | — | 1 | 1:459 |
| Enugu | 1 | 1 | 1 | 5 | 1:751 |
| Port Harcourt[3] | 1 | 1 | 2 | 3 | 1:730 |
| Ogoja[1] | | 1 | — | 4 | 1:227 |
| Onitsha | 1 | 1 | 1 | 6 | 1:703 |
| Owerri | 1 | 1 | 1 | 7 | 1:1032 |
| Umahia | 1 | 1 | 2 | 5 | 1:839 |
| Uyo[2] | 1 | 1 | 1 | 4 | 1:1158 |
| Yenagoa[3] | | — | — | 1 | 1:521 |

1. The zonal inspector in Abakaliki was also responsible for Ogoja province
2. The zonal inspector in Uyo was also responsible for Annang and Calabar provinces
3. The zonal inspector in Port Harcourt was also responsible for Degema and Yenagoa provinces

SOURCE Ministry of Education, Enugu

grade I, which involved more varied work, such as conducting grade II teacher tests. But beyond this, there was no provision for promotion to the rank of assistant inspector.

The coverage of primary schools by inspecting assistants was considerably improved but, as the above figures show, there were still significant local variations. However, the provinces which appear to be well served may be those where communications were difficult and, hence, where more personnel were required to carry out inspections with comparable frequency.

All the higher ranks, from assistant inspector upwards, had to be graduates, often with training outside Nigeria, and also had to have experience in one of the few government schools or training colleges. But some of them had little teaching experience and were quite young.

Thus, the field inspectorate did not offer a unified career pattern: there was a break between inspecting assistants and the higher ranks. As a result, the field of recruitment to the higher ranks was very narrow, and those with most teaching experience were less likely to be eligible. To jump the gap an inspecting assistant would have required both a degree and a period of employment in one of the few government institutions. This serious curb on the career of the inspecting assistants tended to lessen their effectiveness through discouraging the best teachers from recruitment. It also meant that they often had to work under superiors who were less experienced than they were, a situation that was still further exacerbated by the ministry's action in some instances of appointing the less successful government school teachers to positions in the inspectorate in an endeavour to improve the functioning of the schools.

It remains to examine further the duties of the senior ranks of the inspectorate. The assistant inspector was in charge of inspection of primary schools by the inspecting assistants and the senior assistant inspector was concerned with administration rather than inspection. The highest rank in the field inspectorate was the zonal inspector, equivalent to an inspector in the ministry. Apart from general administrative duties as the head of the field inspectorate in an area, the particular task of the zonal inspector was the inspection of secondary education. It should be noted, however, that unlike the situation at the primary level, the expansion of secondary education had not been matched by a corresponding expansion of the inspection machinery, described below.

The principal inspector (secondary) and his staff in the ministry arranged inspections of secondary schools with the zonal inspectors. But this procedure was proving less and less efficient, because of the increase in the number of schools and their increasingly diverse locations, the lack of personnel, and their lack of qualifications for the task. The ministry officials brought together an *ad hoc* team for the inspection of a particular school. However, in doing this, apart from themselves they chose to draw only on the very limited pool of experienced teachers in the government secondary schools, and not on the far larger number of equally qualified people available from voluntary agency schools. Also the zonal inspectors frequently lacked extensive teaching experience, so were not well qualified to inspect. Hence graduate teachers, especially in the majority of voluntary agency schools, resisted inspection, as bringing to bear the influence of a minority of the profession, and sometimes a relatively unqualified minority at that. Except when secondary schools applied for a grant-in-aid, inspection was not systematic—this is an aspect of the ministry's activities which seemed unplanned, or at least which had been overtaken by the expansion of the system.

Another important duty of the zonal inspector was the presentation of an annual report to the Ministry of Education on the work performed by his staff, but it is not known what notice the ministry took of these reports. The zonal inspector was also responsible for improving the performance of his staff, particularly with a view to making inspections more rigorous.

At headquarters, the inspectorate numbered fifteen officials in May 1965, but their duties embraced much more than inspection. In fact, they were the main body of administrators concerned professionally with education, carrying a heavy load of administrative and policy-making functions. The Dike Report criticized this situation and suggested that the inspectorate should be concerned primarily with inspection and not with administration.[1]

## *The Northern Region*

From the point of view of implementation, the most important agency in the Northern Region was the planning division of the Ministry of Education. Its title suggests that its primary function was the preparation of plans, but in fact the division was created after 1962 and has, therefore, been involved mainly in the implementation of the educational proposals of the current development plan. Figure 4 (page 292) shows the structure of the Ministry of Education.

The inspectorate and planning divisions were those concerned with planning, the other divisions having mainly administrative functions. These two divisions co-operated closely with each other, and some of the staff of the planning division came from the inspectorate. The two divisions often produced joint reports for higher officials, so that the views of the inspectorate could be said to permeate the work of the planners, and vice-versa.

The planning division was headed by a planning and development officer. Under him were the statistical and finance officers, and below them three planning officers concerned respectively with primary education and the develop-

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[1] Dike Report, op. cit., p. 38.

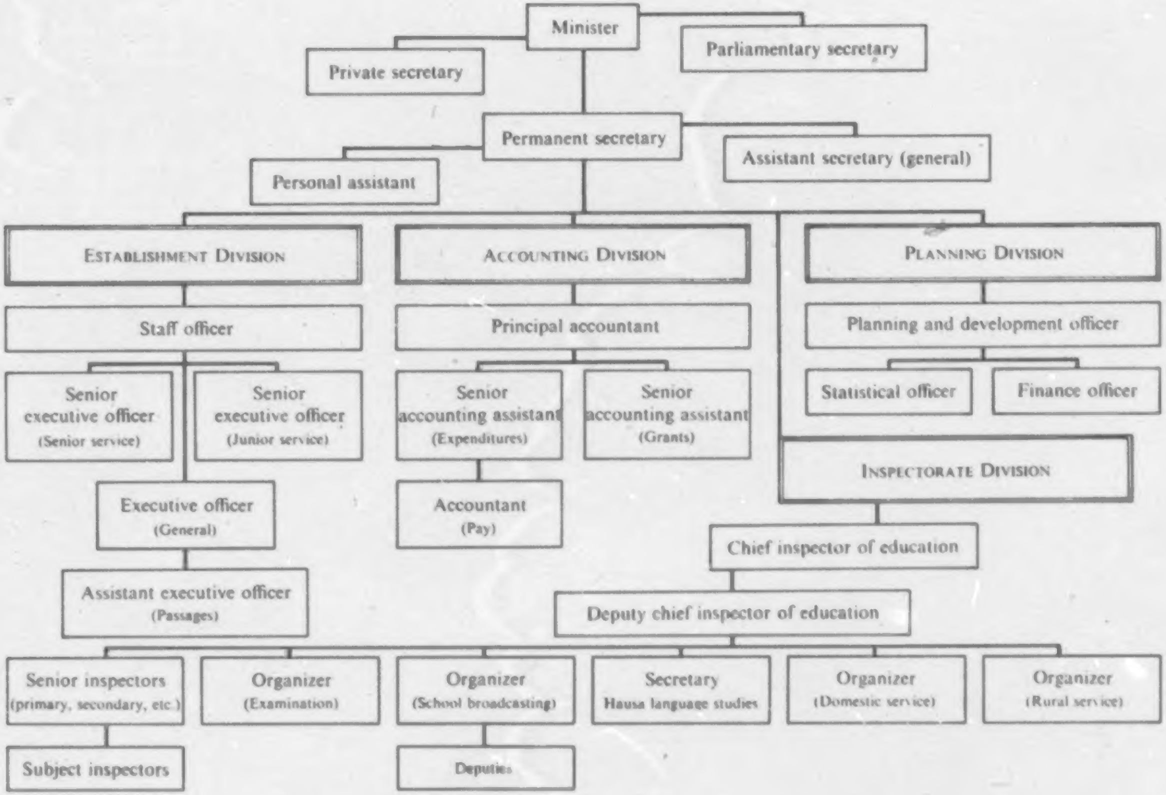
Minister
Private secretary
Parliamentary secretary
Permanent secretary
Personal assistant
Assistant secretary (general)
ESTABLISHMENT DIVISION
ACCOUNTING DIVISION
PLANNING DIVISION
Staff officer
Principal accountant
Planning and development officer
Senior executive officer (Senior service)
Senior executive officer (Junior service)
Senior accounting assistant (Expenditures)
Senior accounting assistant (Grants)
Statistical officer
Finance officer
INSPECTORATE DIVISION
Executive officer (General)
Accountant (Pay)
Chief inspector of education
Assistant executive officer (Passages)
Deputy chief inspector of education
Senior inspectors (primary, secondary, etc.)
Organizer (Examination)
Organizer (School broadcasting)
Secretary Hausa language studies
Organizer (Domestic service)
Organizer (Rural service)
Subject inspectors
Deputies

**Figure 4.** *Northern Nigeria: organization of the Ministry of Education*

ment of local education authorities, secondary education and teacher training, and technical assistance to education.

The officer concerned with primary education dealt, in particular, with staff and organizational cards and a Unicef scheme for aid to primary education in the region. The staff and organization cards were completed annually by all primary school headmasters and provided data on teachers, buildings, enrolments, attendance and school leavers. It was on the basis of these cards that the local authority education officers drew up local authority educational development plans, whether for a new local education authority or within a native authority development plan (in cases where a native authority had not yet established a local education authority), and the officer in the ministry evaluated the plans and approved them or recommended modifications. Because of their close connexion with local authority plans the cards were the responsibility of the officer dealing with primary education and not of the statistics officer. Previously, the work of this officer was concentrated on the collection of data, but as local authority plans became more widely operative, it was increasingly concerned with the evaluation and approval of these plans. The Unicef project consisted in the allocation of teaching materials, mostly visual aids for teachers, to primary schools throughout the region.

The officer concerned with secondary education and teacher training planned their buildings and equipment, in the case of government facilities, in co-operation with the Ministry of Works. The preparation of capital requirements for new projects, and estimates of recurrent expenditure, were made in co-operation with the division's finance officer. The allocation of new facilities at this level was governed by regional needs and availability of resources rather than local claims. With regard to technical education, the inspectors concerned advised on manpower requirements, the planning division being concerned only with the provision of the necessary facilities. For other types of secondary education, estimates of growth were made by the stastistics officer.

The officer responsible for foreign aid arranged the absorption of Peace Corps and other expatriates into the teaching force and also had to plan requirements for such personnel. Also, in consultation with the Ministry of Establishments and Training, he made arrangements for the sending of educational personnel abroad for further training. Up to 1965 the work of this officer was concerned with technical assistance rather than financial aid, and was, therefore, perhaps more administrative in character than that of the other members of the planning division.

The work of the statistics officer was discussed previously and requires little further explanation beyond saying that he was concerned to a greater extent than any other member of the division with the preparation of future plans as distinct from the implementation of current plans.

The finance officer dealt with the costing, both capital and recurrent, of

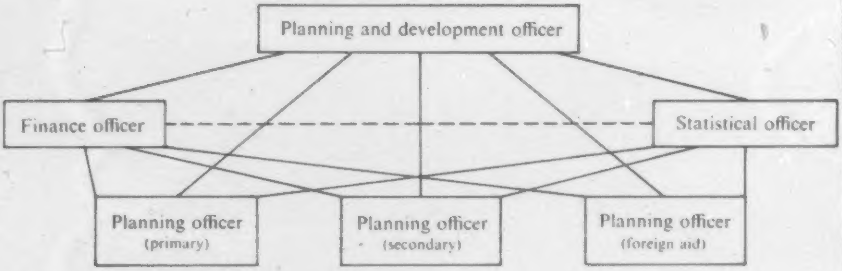
Planning and development officer
Finance officer
Statistical officer
Planning officer (primary)
Planning officer (secondary)
Planning officer (foreign aid)

Figure 5. ***Structure of the planning division (May 1965)***

educational proposals. For this purpose, he co-operated with the Ministry of Local Government in connexion with the grants made by that ministry to local authorities, and with the Ministry of Finance with regard to the resources likely to be available for educational expenditure.

The structure of the planning division, with indications of how the work of all the officials concerned drew on each other, is shown in Figure 5.

In principle, the planning and development officer was involved in both the preparation of future plans and the implementation of current plans. However, the latter was by far the most important part of the work of the division, and it was probably for this reason that the staff of the inspectorate division was so closely involved in the work of the planning division, though the inspectorate also had an important role in the preparation of future plans, for it was on their progress reports that subsequent planning would be based.

Apart from the Ministry of Education, the Ministry of Local Government was the most closely involved in the implementation of educational plans. It had over-all responsibility for the finances of local authorities. Accordingly it authorized them to devote 20 per cent of annual recurrent expenditure to education, and 35 per cent of capital expenditure. Given these proportions, education represented the largest single head of expenditure by local authorities. The ministry was concerned to achieve a surplus on recurrent revenue, in order to establish a reserve to finance capital expenditure. However, this endeavour was not entirely successful, apparently because of the inability of many local authorities to collect their revenues, with the result that local authority capital expenditure on education was curtailed below the levels proposed in the local authority plans. This in turn would curtail the implementation of other aspects of these plans.

The Ministry of Education assisted the implementation of both capital and recurrent aspects of local authority plans. It provided a capital grant of £350 per class-room, and there was also the system of grants-in-aid to cover recurrent costs, in which teachers' salaries were the largest item. However, the provision of the capital grants presupposed that the local authority concerned would also make its contribution, which as mentioned above was frequently the bottle-neck to implementation.

Local authority plans, which concerned only primary education, had to accord with the over-all planning objectives of the Ministry of Education, but required, in addition, the approval of the Ministry of Local Government, since the latter was the final authority with regard to local authority expenditures. Such arrangements seemed liable to constitute a potential source of inter-ministerial conflicts, because the two ministries used different criteria in evaluating educational proposals of local authorities; the Ministry of Education viewed such proposals in the context of educational objectives, the Ministry of Local Government in the light of total expenditure by local authorities.

The possibilities for conflict were likely to grow as more native authorities set up local education authorities which produced educational plans independently of the native authority development plans (hitherto, the latter contained a section relating to education). This was because, under the new system, the educational plans would be submitted directly to the Ministry of Education instead of being forwarded through the Ministry of Local Government, but the latter would still keep the control of the native authorities' financial outlays on education. Hitherto, inter-ministerial conflicts had been avoided by means of frequent informal contacts, but it remained to be seen whether this would continue to be the case in view of the apparent shift in ministerial authority over education at the local level.

An example of how this issue might suddenly come to a head was provided by the impact of the salary increases awarded to local officials by the Morgan Commission.[1] These disrupted the plans of the local authorities by absorbing much of their revenue, and thus called in question the validity of long-term projections of financial outlays on educational projects. When short-term needs of daily administration come into conflict with long-term needs of planning, the former are likely to prevail, and then the Ministry of Education's requirements for the support of a local educational plan over a period of years would be overridden by the Ministry of Local Government's more immediate requirement for the smooth functioning of local administration.

Although primary education was an important joint concern with the Ministry of Local Government, secondary education and teacher training were the direct and exclusive responsibility of the Ministry of Education. As over half of the secondary grammar schools and teacher-training institutions were run by voluntary agencies, the relations between the latter and the ministry were an important factor in the implementation of government policies at the secondary level. The voluntary agencies have not been dealt with in connexion with primary education, since, under the 1964 Education Law, they were in effect being gradually excluded from operating primary schools, though retaining specific rights with regard to their religious interests.

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[1] Nigeria, Federal Ministry of Information, *Report of the Commission on the Review of Wages, Salary and Conditions of Service of the Junior Employees of the Governments of the Federation and in Private Establishments, 1963-64*, Lagos, 1964.

The key figures in the relations between the government and the voluntary agencies at the secondary level were the two education secretaries, one of whom acted for the Catholic agencies, and the other for the Protestant agencies' Northern Education Advisory Council, composed of various denominational members, each of which had a secretary of its own. The secretaries were paid by the government and acted in a liaison and advisory capacity between the government and the proprietors, usually the local bishops. Their work exemplified the significance of good personal relations in the functioning of educational planning in the North; the close contacts established between the two sides were in contrast with the experience of the East.

A voluntary agency wishing to open a new secondary school had to get the permission of the Ministry of Education, and the education law stipulated the conditions to be fulfilled before permission would be granted. The agency then went ahead with building, and in this context it is interesting that a survey undertaken by the Ministry of Works showed that school-building costs of the agencies were much lower than those of the government. One possible reason for this would be the willingness of commercial entrepreneurs of a given denomination to work more cheaply under the auspices of that denomination, and another the community spirit which often pervaded the building of denominational schools and led to the provision of free or cheap labour.

The design requests of the Ministry of Education for new government schools or extensions to the existing ones went in the first instance to the permanent secretary of the Ministry of Works, who forwarded them to the chief architect. Low-cost standard designs were available, but projects based on foreign aid often contained stipulations which prevented their use. The costing was carried out by the quantity surveyor's section at the Ministry of Works, and the completed designs were then sent back to the Ministry of Education for approval.

Apart from the Ministries of Education, of Local Government, and of Works, a number of other ministries were involved, though to a much lesser extent, in the implementation of educational plans, usually with regard to the training of manpower in the field of their operations, e.g., nurses by the Ministry of Health, agricultural assistants by the Ministry of Agriculture. But there was no established machinery for co-operation with the Ministry of Education in such instances, personal contacts with inspectors of technical and rural education usually ensuring the necessary linkages, and perhaps Ministry of Education representation on boards of governors. In many cases, the scale of requirements was so much larger than the financial and physical facilities available that any attempt to relate the training effort to manpower requirements was meaningless, and the principal aim was to make the best possible use of such facilities as were available and of the new ones coming into operation.

As in the other regions, the arrangements for inspection of education were different for the primary and secondary levels. At the primary level, there was devolution on a provincial basis, each provincial inspector having under him a number of assistant inspectors in relation to the school population and the territorial distribution of the schools. At the secondary level, inspection was carried out by the inspectors from the Ministry in Kaduna. Table 6 below shows the distribution of the inspecting personnel for primary education by provinces, derived from the then available figures.

The development plan provided for a provincial inspector and a provincial education secretary for each province, and Table 6 shows how nearly the target was achieved in the case of the inspectors. But in the case of assistant inspectors the picture was very different and, indeed, much worse than the figures in the table might suggest. In the first place, the target figures in the table related to the school population as it was in 1964, whereas primary education was to be considerably expanded. Secondly, this expansion would be most concentrated in the provinces with the lowest current enrolments, i.e., provinces such as Bornu, Katsina, Sardauna and Sokoto, which had almost reached the target for assistant inspectors. Hence the target figures must be considered as totally inadequate to

TABLE 6. Northern Nigeria: inspectors for primary education

| | Provincial inspectors | | Assistant inspectors | | Target for assistant inspectors (allowing 1 for every 5,000 of the school population in 1964) |
|---|---|---|---|---|---|
| Province | October 1964 | April 1965 | October 1964 | April 1965 | |
| Adamawa | 1 | 1 | 2 | 3 | 4 |
| Bauchi | — | 1 | 2 | 1 | 6 |
| Benue | — | 1 | 3 | 3 | 16 |
| Bornu | — | 1 | 6 | 5 | 4 |
| Ilorin | 1 | — | 3 | 3 | 9 |
| Kabba | 1 | 1 | 3 | 3 | 11 |
| Kano | 1 | 1 | 4 | 4 | 8 |
| Katsina | — | — | 3 | 3 | 3 |
| Niger | 1 | — | 4 | 3 | 4 |
| Plateau | 1 | 1 | 3 | 3 | 8 |
| Sardauna | 1 | 1 | 2 | 2 | 2 |
| Sokoto | — | 1 | 4 | 3 | 4 |
| Zaria | 1 | 1 | 3 | 3 | 8 |
| Kaduna | 1 | 1 | 1 | 1 | 2 |

SOURCE Ministry of Education, Kaduna

future needs. Nor is the figure of 5,000 school population per assistant inspector a low one in view of the small average size of the schools, their remoteness, and the paucity of transport facilities.

The assistant inspectors were in most cases grade I or grade II teachers who had had sufficient teaching experience to become headmasters. In principle each covered one of the constituent native authority areas in a province, but owing to differences in the size of school populations and the areas to be covered this was not rigidly adhered to. The provincial inspectors were not normally graduates, but were expected to be better qualified than grade I teachers.

The inspectorate at the ministry comprised, apart from the chief inspector and his deputy, senior inspectors and subject inspectors. The former were distributed between primary, secondary and technical education, teacher training, and women's education. The special post for women's education, which cut across the other types of education, was felt to be necessary in view of the position of girls in a developing Moslem society. The number of subject inspectors for secondary education, who were responsible for inspection of the region's secondary schools, was liable to fluctuate because of the custom of employing them temporarily in other positions in the ministry whenever the necessity arose. In May 1965 there were subject inspectors for English, mathematics, chemistry, technical subjects, arts and crafts, domestic science, rural science and Arabic studies. The qualifications required were a degree, a teaching certificate, and extensive teaching experience; most if not all of the posts were occupied by expatriates, and this situation seemed unlikely to change in the near future.

A particularly important aspect of inspection at the secondary level was the attention paid to the English language, since ability in English largely governs performance in other subjects. As secondary education facilities expand, it could be necessary to devolve inspection duties in this subject to territorial entities in order to ensure a proper coverage. A similar problem could arise with regard to other subjects. The then current arrangements with the centralization of inspection at Kaduna were viable, but with the expansion of secondary education, the number of subject inspectors would have to be at least doubled, since a territorial devolution would require at least two teams instead of one to cover the region.

The Northern Region published a handbook for the guidance of inspectors, stressing their twofold role, to act as a channel for the spread of educational improvements and to check on the implementation of policies. With regard to these functions, it should be noted that although the inspectors were employees of the regional government, while the key figures in local administration, the local education officers, were employees of their local authorities, this did not mean that the government had no control over local education officers. A native authority desiring to attain the status of a local education authority was required by the education law to send its candidate for the post of education officer for training to the educational administration course at Zaria run by the ministry. The ministry was thus able to ensure that education officers learnt what the ministry expected them to do, that they acquired the right approach and became, as it were, the ministry's agent within the local education authority.[1]

To sum up, it would seem that the North had a more integrated machinery for implementation than the East, mainly because of the relatively stronger position of the Northern Ministry of Education. Potentially weak aspects of this implementation machinery were the inspection of primary education and the possibility of frictions between the Ministry of Education and the Ministry of Local Government.

### *The Western Region*

Planned educational expansion in this region dates from the commitment to universal free primary education in 1952, and accordingly there is longer experience of the implementation of educational planning. Before the introduction of universal free primary education in 1955, school inspections were a rare occurrence, but the need for them became urgent with the great expansion of facilities and the consequent rise in the number of inadequately trained teachers. However, the proprietors, who were operating inspection services themselves, objected to government control of inspection, and in addition the Ministry of Establishments would not agree to the necessary expansion of Ministry of Education staff. As an alternative, the Ministry of Education advanced funds to voluntary agencies to enable them to recruit school supervisors who would act as inspectors, but the results were not encouraging and the scheme had to be curtailed. This inadequacy of the inspection system was one of the factors contributing to the widespread fall in standards after the introduction of universal free primary education.

Thus a failure in implementation was largely due to administrative failures which, in turn, had their origins in the multiplicity of interests endeavouring to control the educational system. However, in other respects the regional government did achieve a degree of competence in educational planning which was not attained until much later elsewhere in the country. The maintenance of the universal primary education scheme, at whatever cost, was a considerable planning achievement, greatly helped by the care taken to achieve co-operation with the voluntary agencies whenever feasible.[2] Subsequently the Western Region experienced serious political and economic difficulties; the splitting off of the Mid-West Region in August 1963 had the unfortunate effect of increasing the Western

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[1] In this connexion, see J. F. Thornley, *The Planning of Primary Education in Northern Nigeria*, (pp. 201-242 of this volume).

[2] See David B. Abernethy, 'Nigeria', in David G. Scanlon (ed.), *Church, State and Education in Africa*, New York, 1966, pp. 220-24.

Region's dependence on cocoa revenues for its income at a time of falling world prices for this product. Thus the government was faced with a crippling burden of subsidies to the cocoa farmers. After the separation of the Mid-West, political unrest continued as competing parties struggled for control of the government, backed by various factions outside the region. In these conditions, the evaluation of the implementation process during the development plan period according to normal administrative criteria becomes somewhat academic, particularly when the legal requirement to maintain free primary education is seen against the background of the population explosion.

During the first year of the regional development plan (1962-63), actual capital expenditure exceeded the planned figure by about 50 per cent.[1] Instead of the £250,000 originally scheduled, almost £2 million were spent on teacher-training colleges, all of it on advanced teacher-training colleges, no new action apparently having been taken towards overcoming the inadequacy of primary school teachers. Similarly, the allocation for secondary grammar schools was exceeded, but most of it went for a single comprehensive school established with US-AID assistance. Conversely, no money was spent on handicraft and trade centres. Consequently, capital expenditure in the next year had to be reduced to £934,000 compared with the £2.54 million scheduled.[2] Political factors were commonly claimed to play an important role in the implementation of educational projects, politicians striving to be associated with popular projects rather than those justified on educational grounds.

For the local administration of education the region was divided into four zones, each containing approximately 1,000 primary schools of all types which came under the control of a principal inspector of education, who was both the head of the inspectorate and in charge of administration of primary education in his zone. Below this level, each local authority had a local education adviser, usually an experienced teacher who acted as school supervisor (the chief education officer envisaged by the regional education law), and was apparently responsible to the zonal principal inspector, who in turn acted as a channel between the Ministry of Education and the local authorities, and thus occupied a key role with regard to both inspection and the implementation of educational decisions. The Ministry of Local Government also played a significant role in the implementation process, since it provided annual grants to local education authorities for recurrent expenditure (£10 per teacher and 5 s. per child), though apparently the Ministry of Education retained the sole control of the policies of local education authorities.

However, this did not add up to a well-organized administrative machine, for many of the local education authorities were too small to function effectively,[1] and apparently no special training was given to their advisers. The zonal principal inspectors were too few to overcome such handicaps.

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[1] *Western Nigeria Development Plan 1962-68*..., op. cit., p. 34, table II.

[2] Federal Republic of Nigeria, *National Development Plan*..., op. cit., p. 172, table I.

The inspectorate consisted of five grades—principal inspector, senior inspector, senior inspecting assistant, and inspecting assistants grades I and II. Principal and senior inspectors had to be graduates, the former with eight years' teaching experience, the latter with four years. Senior inspecting assistants were mostly grade I teachers with about twenty years' experience of primary teaching, assistants I were grade I teachers with five years' teaching experience, and assistants II could be newly qualified grade I teachers. The inspectorate operated from the four zonal centres—Oyo, Ibadan, Akure and Ijebu Ode—each of which had its zonal principal inspector, a senior inspector and a senior inspecting assistant. The distribution of assistants I and II within each zone endeavoured to reflect the urban concentration of the primary school population, an effort having been made to establish the zones so that each should contain about 1,000 primary schools. The graduate inspectors also had charge of the secondary schools in their area.

The region's annual financial estimates provided in recent years for five principal inspectors, thirteen senior inspectors, eight senior inspecting assistants, fourteen inspecting assistants I and ninety-two inspecting assistants II, but it was not possible to establish the extent to which this establishment was filled. It was not therefore possible to evaluate the functioning of the inspectorate.

### *The Mid-West Region*

The recent emergence of the Mid-West as an autonomous region and the even more recent advent of its development plan (published in 1965) make any discussion of implementation procedures an academic exercise. However, it may be useful to review existing machinery as an indication of the prospects for possible future activity in this context. The local educational administration was similar to that of the Western Region. However, suggestions were made for the setting-up of new local education authorities, more independent of other local government affairs than hitherto, and with greater participation of voluntary agencies.

As shown in Table 7, the inspectorate was almost up to establishment, but the figures were deceptive because many of the inspectors could not perform their duties owing to the lack of transport facilities and their periodic allocation to other tasks, e.g., the collection of census data. In any case, the ministry had so far made little use of inspectors as a feed-back mechanism from below.

The senior inspectors had to be graduates with teaching experience, the senior

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[1] Abernethy, op. cit., p. 224, in this context.

TABLE 7. The field inspectorate in the Mid-West Region, 1965

| | Present establishment | Present staffing | Proposed establishment |
|---|---|---|---|
| Senior inspectors of education | 2 | 1 | 8 |
| Senior inspectors (secondary) | — | — | 3 |
| Senior inspecting assistants | 4 | 3 | 4 |
| Inspecting assistants (grade I) | 10 | 9 | 16 |
| Inspecting assistants (grade II) | 34 | 34 | 36 |

SOURCE Ministry of Education, Benin

inspecting assistants grade I teachers with extensive teaching experience, and the inspecting assistants at least grade II primary teachers. The proposed additions to the establishment would have enabled a senior inspector to be stationed in each district to act as the ministry's spokesman and source of information with regard to primary education, while three other senior inspectors would deal with secondary education.

## Reviewing procedure

This stage of the planning process hitherto hardly received any serious consideration in Nigeria. Since there were no comprehensive national educational plans, but rather educational components of federal and regional development plans, and these still far from realization, any specific machinery for their review seemed premature, particularly in view of the scarcity of manpower available for such an extra task. There are, however, two topics relevant to the reviewing procedure which will be discussed briefly—the progress reports on the national development plan and the potential role of the inspectorate in the review of educational plans.

The progress reports, which were the responsibility of the federal and regional economic planners, gave an account of the progress achieved in the realization of projects during each financial year, and the federal report also stated the amount of resources available for the implementation of the projects. But the regional reports, whenever they indicated a failure to achieve targets, did not generally make proposals for re-phasing the implementation of projects, and this was a significant omission.

The inspectorate in each of the regions had, among other duties, that of reporting on local observance of ministerial instructions and, as such, it could have been trained to perform the task of a local review agency for implementation, though this might require expansion of its personnel.

There were thus two actual or potential channels for the reviewing procedure, one central and the other local. What seemed to be lacking was an intermediate channel able to collate and relate local reports to regional or national targets and to make informed recommendations for further implementation. It may be that certain officials in the ministries of education were already doing this kind of work as part of their duties, but it did not appear that anybody was officially charged with this task. Perhaps the advisory boards attached to the ministry of education would have been an appropriate body to perform such a task, or perhaps a new body could have been created for this purpose.

## 6

# Conclusion

This study has examined some of Nigeria's recent experience of educationa planning. A number of points arise out of this examination, and the principles implicit in these are relevant to the improvement of educational planning not only in Nigeria, but in many other countries as well.

At the beginning of Chapter 3 we established a simple theoretical framework for the discussion of educational planning experience in the regions of Nigeria. This enabled us to isolate the different major activities in the educational planning process, with specific reference to the 1962-68 National Development Plan, and to examine each region's progress in each of these activities. With the period of the plan only half elapsed at the time of examination this was obviously a tentative exercise. The choice of this period possibly favours the North, and certainly our observations tended to suggest that in 1965 this was the region of Nigeria with the most active commitment to the use of planning techniques and procedures as an aid to its further educational development. However, it must also be recognized that the particular educational problems of the North at that time were perhaps more suited to the use of planning procedures than the contemporaneous problems of other regions—i.e., from the viewpoint of planning, it is probably easier to concentrate on expanding an educational system than on upgrading it, though of course this is not to imply that any part of Nigeria was preöccupied with either of these endeavours to the exclusion of the other.

In any case Nigeria is a difficult country for which to make such an evaluation of the educational planning process. A federation of not many years' standing which was undertaking a pioneering planning exercise, and in which some of the potentially most significant elements of the planning machinery had scarcely become operational when the plan was published (see Chapter 2), provides a very complex case. In addition, during the years under consideration one part of the country was undergoing serious economic and political difficulties which interfered with its ability to carry out planned policies. Thus our conclusions must be tentative, and subject to the influence of the above observations.

However, taking into account also the point made in the introduction about the influence on any such comparison of the different levels of educational progress in the regions, the following conclusions can be drawn from the study.

1. A federal structure of government makes planning a much more complex operation. The nature of this complexity is of course dependent on the precise federal structure in the country under study. In Nigeria's case the predominantly regional responsibility for education existed in conjunction with a considerable federal control over sources of government revenue. Thus the division between spending and revenue-earning ministries, in which education falls squarely among the former, was made more complicated by the division of levels of government. Behind this lies the more general point that any planning process is more complicated when it has to pass through a more complex planning machinery.
2. A major determinant of the content of any educational plan is the previous educational history of the area to be planned. Thus in Northern Nigeria the previous comparative absence of educational development limited the possible pace of further development because of, for instance, the absence of teachers for an enlarged educational system. Similarly in the southern regions the previous rapid development of primary education had created such a burden of recurrent expenditure that the further development of other educational levels was limited by shortage of finance.
3. The scarcity of personnel with training as planners impaired the preparation of plans, e.g., in Western Nigeria earlier during the preparation for universal primary education, and elsewhere later in adequately preparing and costing projects.
4. One of Nigeria's greatest difficulties lay in the comparative lack of statistical data, the machinery to collate them, and the personnel to interpret them.[1] As was noted in the course of Chapter 3, it appeared to be the Northern Region which had taken the most active steps towards the overcoming of this difficulty.
5. At the stage of implementation of planning there was a lack of recognition of the possibility of using the inspectorate in a more positive way as an agency for plan implementation, or at least, if this possibility had been recognized it was not being followed up actively.

These conclusions lead us to reiterate the criteria for the evaluation of progress in planning which we set out in the introduction, but this time as principles to be observed in attempting to improve planning performance.

1. Regular collection and processing of relevant data for planning.
2. Training and permanency of planning personnel.

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[1] Thus it is noteworthy that W. F. Stolper, the original head of the federal Economic Planning Unit, entitled a book substantially based on his Nigerian experience *Planning without Facts*.

3. Phasing and costing of educational proposals within the context of other government expenditures so that the agencies concerned, such as the economic planning unit and ministry of finance, can see them as such and provide for their implementation.
4. Development of procedures and personnel for the implementation of plans and review of their progress.

# IIEP book list

The following books, published by Unesco/IIEP, are obtainable from the Institute or from Unesco and its national distributors throughout the world:

*Educational development in Africa* (1969. Three volumes, containing eleven African research monographs)

*Educational planning: a bibliography* (1964)

*Educational planning: a directory of training and research institutions* (1968)

*Educational planning: an inventory of major research needs* (1965)

*Educational planning in the USSR* (1968)

*Fundamentals of educational planning* (series of booklets; full current list available on request)

*Manpower aspects of educational planning* (1968)

*Methodologies of educational planning for developing countries* by J. D. Chesswas (1969)

*Monographies africaines* (five titles, in French only; list available on request)

*New educational media in action: case studies for planners* (1967. Three volumes)

*The new media: memo to educational planners* by W. Schramm, P. H. Coombs, F. Kahnert, J. Lyle (1967. A report including analytical conclusions based on the above three volumes of case studies)

*Problems and strategies of educational planning: lessons from Latin America* (1965)

*Qualitative aspects of educational planning* (1969)

The following books, produced in but not published by the Institute, are obtainable through normal bookselling channels:

*Quantitative methodologies of educational planning* by Héctor Correa. Published by International Textbook Co., Scranton, Pa., 1969

*The world educational crisis: a systems analysis* by Philip H. Coombs. Published by Oxford University Press, New York, London and Toronto, 1968

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The Institute's aim is to expand knowledge and the supply of competent experts in educational planning in order to assist all nations to accelerate their educational development. In this endeavour the Institute co-operates with interested training and research organizations throughout the world.

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